HEARING

BEFORE THE

CALIFORNIA ENERGY RESOURCES CONSERVATION

AND DEVELOPMENT COMMISSION

In the Matter of:)
)
Application for)
Certification of the) Docket No. 99-AFC-
THREE MOUNTAIN POWER PROJEC	CT)
(OGDEN ENERGY, INC.))
)

CALIFORNIA ENERGY COMMISSION

HEARING ROOM A

1516 NINTH STREET

SACRAMENTO, CALIFORNIA

TUESDAY, MARCH 21, 2000 9:00 A.M.

Reported by: Debi Baker Contract No. 170-99-001 ii

COMMITTEE MEMBERS PRESENT

William J. Keese, Chairman, Presiding Member

Robert A. Laurie, Commissioner, Associate Member

STAFF PRESENT

Edwin Bouillon, Jr., Hearing Officer

Cynthia Praul, Advisor to Chairman Keese

Steve Williams, Advisor to Commissioner Laurie

Dick Ratliff, Staff Counsel

Richard Buell, Project Manager

Robert L. Anderson

Steve Baker

James Adams

Gary Walker

Dave Flores

Joseph M. Loyer

PUBLIC ADVISER

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Burney Resource Group Marcella Crockett John C. Pfeiffer

Hathaway Burney Ranch FLP Claude Evans

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PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1	PROCEEDINGS
2	9:00 a.m.
3	PRESIDING MEMBER KEESE: Good morning,
4	ladies and gentlemen, we'll call this meeting to
5	order. I'm Bill Keese, Presiding Member of the
6	Three Mountain Project.
7	On the far left, Bob Laurie, Second
8	Member on this siting case. Our Hearing Officer
9	Ed Bouillon. My Advisor Cynthia Praul. I think
10	we'll dispense with the introduction of all the
11	parties because I believe everybody was here at
12	our last meeting.
13	With that I will hand this over to Mr.
14	Bouillon.
15	HEARING OFFICER BOUILLON: Thank you,
16	Mr. Chairman. We're going to deal today with the
17	remainder of the topics listed in the schedule for
18	March 7, 2000. Specifically, we have a lot of
19	issues that can be taken by stipulation.
20	We also have to deal with the geological
21	resources, visual and socioeconomic issues via
22	live testimony. It's my understanding that
23	everything else can be handled by stipulation,
24	with the exception of noise, and that's going to

have to be postponed for lack of witnesses.

1 In addition, one of the leftover things 2 we have from our last hearing is the transmission 3 system engineering. There are some cross-motions 4 on file. One filed by TANC to strike the 5 testimony of Mark Hesters; and one filed by the 6 staff to, I believe, strike the testimony of both of TANC's witnesses, is that correct, Mr. Ratliff? 8 MR. RATLIFF: Yes. 9 HEARING OFFICER BOUILLON: We are not 10 going to argue those motions today. regulations, I think it's section 1716.5 provides 11 12 that all the other parties have an opportunity to 13 respond to those motions. That's, I think, a 14 statutory 15-day period, and then the Committee 15 has a 30-day period within which to act on those 16 or to set a hearing on the motions. 17 Once we receive the responses, if any, 18 we'll decide what we're going to do from there. 19 Whether or not to have any argument on the motions. 20

I presume that both motions were served
on all of the parties, but I don't know that for
sure. I haven't examined the proof of service
list. I do know that I spoke to Ann MacLeod
yesterday and she had not received either motion.

So, Mr. DeCuir, and Mr. Ratliff, if both

- of those motions -- if each of your motions was
- 3 not served upon the entire service list, please do
- 4 so today.
- 5 MR. ZISCHKE: Our motion should have
- 6 been served on everybody, so I'll check and make
- 7 sure.
- 8 One question regarding the scope of
- 9 geology today. The motion that was filed was
- 10 based on that report to put geology over into part
- 11 two. I had not been under the impression that
- 12 geology was going to be fully heard today on all
- 13 the testimony, but instead that we were going to
- 14 hear testimony on the motion as to whether to put
- it over to part two based on the Piedmont
- 16 GeoSciences report, and wanted to clarify that.
- 17 HEARING OFFICER BOUILLON: No, it's my
- 18 understanding we're going to hear that issue today
- in its entirety.
- 20 Do you have your witnesses here?
- MR. ZISCHKE: Yes.
- 22 HEARING OFFICER BOUILLON: Okay. And
- 23 are you prepared?
- 24 MR. ZISCHKE: That's fine, I just wanted
- 25 to clarify.

1	HEARING OFFICER BOUILLON: With that, I
2	want to make just one additional comment on the
3	schedule. There are some other dates set for
4	April 11th and April 12th for the evidentiary
5	hearings on the air and water issues, as well as
6	biological resources and the alternatives.
7	Those, obviously, are going to have to
8	be canceled, and new dates set. No order has yet
9	been issued on that, but each of you can free up
10	your calendar for those two days, as well as for
11	the date for the prehearing conference we had set
12	on those issues.
13	MS. FOX: Hello?
14	HEARING OFFICER BOUILLON: On March
15	23rd, we'll cancel that date, also, and set a new
16	date for a further prehearing conference for when
17	the anticipated reports come out.
18	That will all be done by written order.
19	You should receive that sometime this week.
20	With that, is Roberta here? Our Public

There she is, just walked in. Are you ready,
Roberta?

Adviser, Roberta Mendonca, was going to make a

short report as to her efforts in this matter.

21

22

MS. MENDONCA: Good morning. We're

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1 still working out some nuances on the
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- teleconference call, but I believe you'd like to
- 3 know about my public outreach in the community of
- 4 Burney, and --
- 5 HEARING OFFICER BOUILLON: That's
- 6 correct.
- 7 MS. MENDONCA: -- like the wind, today.
- 8 The Public Adviser was in the community of Burney
- 9 more than six times. We made two visits before we
- 10 had the first informational hearing. And the
- 11 outreach in the community involved both individual
- 12 citizens and organizations.
- I went to two Chamber of Commerce
- 14 luncheons, a Lions dinner. I made contact with
- 15 the Pit River Indian Nation office and made three
- 16 visits to that office.
- 17 Basically I believe that we've had an
- 18 excellent opportunity to become acquainted with
- 19 the Burney community and reach all of those people
- 20 that were interested in participating in our
- 21 process.
- 22 And if you'd allow me, I'm going to go
- and ask if the telephone -- if there's anybody on
- the line.
- 25 Is there anybody on the conference line?

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1 MS. FOX: Yes, I'm on.
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- 2 MS. MENDONCA: Would you mind
- introducing yourself, please?
- 4 MS. FOX: My name is Meg Fox.
- 5 MS. MENDONCA: Meg Fox. Thanks, Meg.
- 6 Will you let us know when you decide to leave, if
- 7 you decide to leave?
- 8 MS. FOX: Okay. It keeps cutting out.
- 9 I'm only hearing people sporadically.
- 10 MS. MENDONCA: Okay, we'll try and work
- on that. Thank you.
- 12 And that concludes my report.
- 13 HEARING OFFICER BOUILLON: Very briefly,
- let's turn first to the issue of geological
- 15 resources, and my understanding -- before we do
- that, and while Mr. DeCuir is still here, one of
- 17 the things that came up during transmission system
- 18 engineering was the admission of a series of
- 19 letters which are marked collectively exhibit 53.
- Those were not admitted into evidence
- 21 simply because we did not have them here. Those
- 22 have since been provided to me by Mr. Ratliff.
- 23 And I'm prepared to admit those into evidence,
- reopen the record on transmission system
- 25 engineering for that limited purpose and admit

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1 those letters into evidence.
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- 2 But before that I have a question, and 3 this does involve Mr. DeCuir. You might want to
- 4 come forward.
- When I first received these four letters
 they were part of an overall package that had been
- 7 docketed with the office.
- 8 MS. FOX: Hello?
- 9 HEARING OFFICER BOUILLON: Nobody's 10 talking. On March 6th the docket office received
- 11 a packet which was actually dated March 2nd of
- 12 this year. It is under a cover sheet from the
- 13 California ISO to Al McCuen from Peter Mackin.
- 14 Those four letters that are marked as 53
- 15 (a) through (d) are attached to that. And also
- 16 attached to the last letter is a copy of an email
- 17 message from Peter Mackin to a bunch of names
- 18 which I do not recognize, Jeff Miller, Armando
- 19 Perez, Kevin Graves and Zora Lazio. It's some
- 20 notes of a meeting involving various parties.
- 21 So this is part of the docketed
- 22 material, but I don't know if it was actually an
- 23 attachment to one of the letters or not, and
- 24 whether any attempt was made to make those email
- notes a part of exhibit 53.

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1 So since this was being offered by Mr.
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- 2 Ratliff, I'll ask for his comments on that first,
- 3 if you have any.
- 4 MR. RATLIFF: Well, it was our intent
- 5 that the attachments included -- they include,
- 6 most importantly, the draft SMOP, the special
- 7 mitigation operating procedures, which were the
- 8 point of discussion at the hearing.
- 9 HEARING OFFICER BOUILLON: Mr. DeCuir,
- do you have any comments on that?
- MR. DeCUIR: Yes, thank you, Mr.
- 12 Bouillon. I had reviewed the transcript after the
- hearing and confirmed for myself that Mr. Ratliff
- 14 had not, when he indicated to the Committee what
- was included in this package, mentioned the
- inclusion of what is known as the SMOP.
- 17 And I had not realized that it had been
- included because during the hearing he did not
- 19 have copies available to share with anyone. In
- 20 fact, I didn't realize it was included until on
- 21 the afternoon of the 8th when I was reviewing the
- 22 faxes that had come in during the hearing on the
- 7th, I came across the fax of this package,
- exhibit 53, which included the SMOP.
- 25 And while Mr. Ratliff asked questions of

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1 several witnesses on the SMOP, I did not
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- 2 appreciate at the time that he intended to move it
- 3 into evidence.
- 4 I had also suggested to the Committee
- 5 that it would be proper to reopen the transmission
- 6 system engineering portion in order to examine
- 7 this evidence, in order to -- my words at the
- 8 hearing, to permit us to have an opportunity to
- 9 rebut what was said on the issue of the SMOP.
- The Committee, if the Committee has had
- 11 an opportunity to look at it, will see that the
- 12 SMOP has not been approved by PG&E management.
- 13 The ISO staff --
- 14 HEARING OFFICER BOUILLON: Oh, you don't
- need to go into that, Mr. DeCuir.
- MR. DeCUIR: Well, this is what we're
- talking about, it's the evidence, Mr. Bouillon.
- 18 The ISO Staff has disapproved it, said it's got
- 19 problems.
- 20 HEARING OFFICER BOUILLON: Excuse me,
- 21 Mr. DeCuir, we're talking now about whether it's
- 22 being offered, not whether it's going to be
- 23 admitted.
- 24 MR. DeCUIR: Well, I'm talking about
- 25 what it is so that we can argue about whether it

HEARING OFFICER BOUILLON: No, we're not

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1 should be admitted.
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3	talking about what it is. I've identified what it
4	is, and it's those notes by Mr. Mackin with the
5	attachments on those notes. It doesn't need any
6	further identification. It's been docketed.
7	MR. DeCUIR: Well, for the purpose of
8	arguing whether it ought to be admitted or not,
9	it's proper to talk about what it contains because
10	the staff counsel is offering it for the purpose
11	of proving his claim that the SMOP will solve all
12	problems related to the congestion and reliability
13	concerns that TANC has stated.
14	So, just to make it brief
15	HEARING OFFICER BOUILLON: Mr. DeCuir,
16	you misunderstand completely what I'm trying to
17	drive at here. I'm trying to simply find out
18	whether it's being offered as an exhibit. Mr.

20 understanding from the transcript that it was not
21 one of those documents mentioned during the
22 hearing.

Ratliff says yes. You've given me your

23 The question of whether or not we can 24 take semi-judicial notice of something that's 25 included that's been docketed and is in the file

of this case, is not the issue here, nor is the

- 2 issue what we should do with it.
- 3 So, do I understand you correctly?
- 4 You're saying that the email and its attachments
- on the SMOP were not offered by Mr. Ratliff?
- 6 MR. DeCUIR: It was not my understanding
- 7 at the time. I did not understand at the time of
- 8 hearing that the SMOP was included in this packet.
- 9 HEARING OFFICER BOUILLON: That's fine.
- 10 Does the applicant have any comments in that
- 11 regard?
- 12 MS. COTTLE: I don't think we have any
- 13 comments right now.
- 14 HEARING OFFICER BOUILLON: Excuse me?
- MS. COTTLE: I don't have any comment
- 16 right now.
- 17 HEARING OFFICER BOUILLON: All right.
- 18 MR. RATLIFF: Commissioners, if I may, I
- 19 may have been imprecise in offering these. The
- 20 discussion of all of the exhibits which were
- 21 marked has to do with the SMOP. The SMOP is an
- 22 attachment. This is the email correspondence that
- 23 you mentioned concerning the discussions regarding
- 24 the SMOP with the ISO. So they explain and
- 25 confirm the information that we marked as

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1 exhibits.
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were offered.

It was my intent, and it only makes 2 3 sense, I think, in any logical way of 4 understanding and interpreting the documents, to 5 include the attached material behind the 6 correspondence that you marked as exhibits. I don't want to, as I think Mr. DeCuir 8 is, engage in argument over the SMOP, but the ISO did not reject the SMOP. In fact, their testimony 9 was that an SMOP very similar to this was one that 10 11 they expected would be, in fact, put in place. HEARING OFFICER BOUILLON: All right, 12 13 what the Committee has decided to do in this 14 matter is exhibits 53(a), (b), (c) and (d) will be 15 admitted. Those are the letters, themselves. It 16 is not the cover sheet from Peter Mackin, and it 17 is not any of the attachments on the back of that 18 cover sheet, other than the letters, themselves. 19 The cover sheet and the email notes and 20 the SMOP procedure, or whatever that is, has been 21 docketed and is part of the record in this case. 22 But it is not going to be as a part of exhibit 53.

And we're not going to reopen the record for any

purpose other than admitting the exhibits as they

1	I have reviewed the transcript, myself,
2	and I concur with the Committee that, in fact,
3	there was no mention of that email note at that
4	time. So that will be the ruling on that.
5	And we can now proceed to the issue of
6	geological resources.
7	It's my understanding that the Burney
8	Resources Group would like to put this on first
9	because they have a witness that has made enough
10	trips up here.
11	MR. DeCUIR: Can I just make an
12	exception, and then I'll because I'm not
13	interested in the rest of the proceedings today,
14	I'll take my leave.
15	I want to make an exception to the
16	Committee of reopening the transmission system
17	engineering portion to admit the evidence that has
18	been admitted
19	HEARING OFFICER BOUILLON: That's fine.
20	MR. DeCUIR: on the ground that the

MR. DeCUIR: -- on the ground that the exhibit was not moved into evidence, and the portion of the transmission system engineering portion of these proceedings was closed.

21

22

23

24 And further, that the parties were not 25 given an opportunity to examine this exhibit ahead

of time. This was not part of the staff's case in

- 2 chief.
- With that exception, and I'd also like
- 4 to clarify that the SMOP procedures,
- 5 themselves, --
- 6 HEARING OFFICER BOUILLON: I don't want
- 7 to hear about the SMOP. That's not an exhibit in
- 8 this case.
- 9 MR. DeCUIR: I wanted to ask that
- 10 question, to ask it specifically.
- I thank you very much for your time. I
- 12 didn't mean to take up undue time.
- MS. COTTLE: Can I ask one question,
- 14 please? I just wanted to note that at the last
- 15 hearing our witness on transmission system
- 16 engineering, we had intended to move in the
- 17 portions of the AFC that he was responsible for,
- 18 and I don't believe that those portions were moved
- 19 in.
- 20 And my question is, we have marked the
- 21 entire AFC as an exhibit on our exhibit list. And
- 22 if the Committee intends to move the entire AFC
- into evidence, then that will take care of the
- 24 portions on transmission system engineering. But
- 25 I wasn't sure how we were going to handle that and

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1 whether we needed to have the portions on
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- 2 transmission system engineering moved in now, if
- 3 we could.
- 4 HEARING OFFICER BOUILLON: Customarily,
- 5 portions of both the AFC and the FSA have been
- 6 moved in as the witnesses have testified, or the
- 7 subjects have been completed.
- 8 It's not required that we do so. If you
- 9 want to wait until the end and move the whole
- 10 thing in, except for the limited problem that
- 11 there may not be the people in attendance who may
- want to object to certain portions of it, there's
- 13 nothing wrong with that.
- 14 COMMISSIONER LAURIE: But I think the
- 15 question is that the record may be unclear whether
- or not the request was made to actually admit it.
- I don't know what the record says. Does the
- 18 applicant, at this time, desire to seek admission
- if they had not done so before.
- If so, I certainly have no objection.
- 21 HEARING OFFICER BOUILLON: That's fine,
- is that what you're trying to do?
- MS. COTTLE: That's what we would like
- 24 to do, yes. Thank you.
- 25 HEARING OFFICER BOUILLON: I think for

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1 future purposes, as each portion of written
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- 2 testimony is used, whether it's part of the FSA or
- 3 the AFC or independently submitted testimony, that
- at the conclusion of that witness' testimony on
- 5 cross-examination, that it be moved into evidence,
- or offered into evidence.
- 7 MS. COTTLE: Okay, we'll do that from
- 8 now on, thank you.
- 9 HEARING OFFICER BOUILLON: That portion
- of the AFC and -- Mr. Tomlinson, was it?
- MS. COTTLE: Yes, Byron Tomlinson.
- 12 HEARING OFFICER BOUILLON: -- his
- 13 testimony will be admitted.
- MS. COTTLE: Thank you.
- 15 HEARING OFFICER BOUILLON: All right,
- 16 now, Ms. Crockett, about five minutes ago you
- 17 started to say something.
- MS. CROCKETT: The Burney Resources
- 19 Group will be pleased to either offer our witness
- 20 first or at the end, whichever would make for a
- 21 smoother inflow of information into the record. I
- 22 will leave that decision up to the Commissioners.
- 23 HEARING OFFICER BOUILLON: What we're
- going to do, what the Committee has decided to do
- is we're going to listen to evidence about that

late report. I say late report, it's a 1998

- 2 report, but nevertheless discovered recently by
- 3 the Burney Resources Group.
- 4 Chairman Keese and Commissioner Laurie
- 5 both told me that this Committee has an obligation
- 6 to consider every evidence that might bear on this
- 7 matter.
- I've read the pleading, they have, too,
- 9 and the consensus is that we will go ahead, that
- 10 report will be admitted into evidence once it gets
- offered. And we'll proceed from there.
- 12 I understand the applicant is prepared
- to proceed, so on the topic of geological
- 14 resources, would the applicant please call their
- 15 witness. And for the applicant who is going to
- 16 handle that?
- 17 MR. ZISCHKE: I'll be handling that,
- 18 Mike Zischke, for the applicant. And our witness
- 19 on geology is Don Barrie.
- Whereupon,
- 21 DON BARRIE
- 22 was called as a witness herein, and after first
- having been duly sworn, was examined and testified
- 24 as follows:
- 25 //

1	DIRECT EXAMINATION
2	BY MR. ZISCHKE:
3	Q Good morning. Could you please state
4	your name for the record.
5	A Don Barrie.
6	Q Were your qualifications submitted with
7	Three Mountain Power's prehearing conference
8	statement?
9	A Yes, they were.
10	Q I'd like to ask a few questions to
11	summarize those qualifications. Are you a
12	registered geologist?
13	A Yes, I am.
14	Q And a certified engineering geologist?
15	A Yes, I am.
16	Q How many years of experience do you have
17	in this area of work?
18	A Twelve years of experience.
19	Q And what professional degrees do you
20	have in that area?
21	A I have a bachelor of science degree in
22	geology and a master of science degree in geology
23	MR. ZISCHKE: Based on Mr. Barrie's
24	statement today, and our prior submission of his

qualifications I request that the parties

stipulate to the qualification of this witness to

- 2 testify on the subject matter of his testimony.
- 3 HEARING OFFICER BOUILLON: That was
- 4 general agreement, that will be stipulated.
- 5 BY MR. ZISCHKE:
- 6 Q Now, I'd like to discuss the two
- 7 documents of testimony that have been submitted.
- 8 The first of these is your direct testimony on
- 9 geology that was submitted by Three Mountain Power
- 10 entitled, geologic hazards and resources, Donald
- 11 S. Barrie, and the second document of testimony is
- 12 the supplemental direct testimony entitled,
- geologic hazards and resources, evaluation of 1998
- 14 Piedmont GeoSciences report, Donald S. Barrie,
- 15 that was submitted with our response to the Burney
- 16 Resources Group's motion.
- 17 And I have a couple questions dealing
- 18 with both of those documents.
- 19 Did you prepare those documents of
- 20 testimony?
- 21 A Yes, I did.
- 22 Q And are those documents of testimony
- 23 true and correct to the best of your knowledge?
- 24 A Yes, they are, to the extent that my
- 25 second testimony contains new information not

1 included in the AFC analysis in the first

- 2 testimony.
- 3 HEARING OFFICER BOUILLON: Excuse me,
- 4 Mr. Zischke, before we go any further, the portion
- of his original written testimony, do you know
- 6 what the exhibit number on that is?
- 7 MR. ZISCHKE: It was in volume one of
- 8 two, 17.
- 9 HEARING OFFICER BOUILLON: With your
- 10 prehearing conference statement you submitted an
- 11 exhibit list which had numbers for each individual
- 12 portion of the testimony.
- MR. ZISCHKE: Yes.
- 14 HEARING OFFICER BOUILLON: What number
- is that?
- MR. ZISCHKE: It's number 17 on that
- list.
- 18 HEARING OFFICER BOUILLON: Okay. And
- 19 the supplemental testimony, received March 14th,
- staff, needs a new number, does it not? That's
- 21 not on your prenumbered list?
- MR. ZISCHKE: That would be correct.
- 23 HEARING OFFICER BOUILLON: We will give
- that, for identification, number 57.
- 25 All right, you may proceed.

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1 MR. ZISCHKE: Thank you.
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- 2 BY MR. ZISCHKE:
- 3 Q If asked to testify today would your
- 4 testimony be substantially the same as in those
- 5 two documents?
- 6 A Yes, it would.
- 7 Q Have you reviewed the testimony of John
- 8 C. Pfeiffer that was submitted by the Burney
- 9 Resources Group?
- 10 A Yes, I have.
- 11 Q In that testimony does Mr. Pfeiffer
- 12 refer to a report prepared by Piedmont GeoSciences
- 13 entitled, potential seismic sources for Pit No. 4
- Dam, Shasta County, California?
- 15 A Yes, he does.
- 16 MR. ZISCHKE: I guess I might ask the
- 17 Hearing Officer if we're going first, I don't know
- 18 whose -- we're going to be discussing that report.
- 19 Do we need a number now, or --
- 20 HEARING OFFICER BOUILLON: I think we
- 21 should. We can make that number 58, and that is
- the geological hazards testimony by John C.
- 23 Pfeiffer, received by the Commission on March
- 24 16th. It's dated at the top March 13th. And
- 25 that's exhibit number 58 for identification.

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1 MR. ZISCHKE: Okay, and that's Mr.
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- 2 Pfeiffer's testimony, and there's also the study
- 3 which I don't believe was attached to his
- 4 testimony, but has been docketed, if I recall
- 5 correctly.
- 6 HEARING OFFICER BOUILLON: Let's make
- 7 that report number 59.
- 8 MR. ZISCHKE: Okay.
- 9 BY MR. ZISCHKE:
- 10 Q Mr. Barrie, Mr. Pfeiffer's testimony,
- does he refer to some maps that are attached to
- the Piedmont GeoSciences report?
- 13 A Yes, he does.
- 14 Q And have you reviewed that report and
- the attached maps?
- 16 A I have, yeah, both.
- 17 Q On the second page of Mr. Pfeiffer's
- 18 testimony he refers to two unnamed fault segments
- 19 as being very close to the site, and he states
- 20 that one of these unnamed fault segments may
- 21 actually cross the site.
- 22 Are you familiar with those statements
- in Mr. Pfeiffer's testimony?
- 24 A Yes, I am.
- 25 Q Can you show the Committee and the

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1 parties where those two unnamed fault segments are

- 2 located?
- 3 A Yes, I have a rough map or I can
- 4 describe it, either way.
- 5 Q Do you have the map entitled quaternary
- 6 fault map of the Pit River region? Is that the
- 7 map that shows those two segments?
- 8 A Yes. Shall I describe it?
- 9 O Please.
- 10 A Okay. There are a couple of short fault
- 11 segments that occur northeast of the proposed
- power plant site, the closest of which occurs
- approximately 2000 feet northeast of the power
- 14 plant site. It's a relatively short fault
- segment; it's about 1.6 miles in length.
- And there's another shorter fault
- 17 segment just northeast of that, or approximately
- 18 4700 feet northeast of the site. That shorter
- 19 fault segment is about a mile in length.
- 20 And both of these unnamed fault segments
- 21 again occur on the TL Sawyer map, the quaternary
- fault map of the Pit River region, and also on the
- 23 quaternary faults of the Modoc Plateau, that map.
- 24 Again, both of these are relatively
- short faults, and both of them occur northeast of

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1 the proposed power plant site.
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- 2 Q Do either of those unnamed faults cross
- 3 the project site?
- 4 A No, they don't.
- 5 Q Could you explain for the Committee and
- 6 the parties how you determined that?
- 7 A Yeah, I examined the quaternary fault
- 8 map of the Pit River region, and also the
- 9 quaternary fault map of the Modoc Plateau. And
- 10 measured the distance as accurately as I could
- from a known point on both of those maps.
- 12 And I then scaled off that distance onto
- a topographic map, which I brought with me today,
- 14 that also shows the location of the power plant
- 15 site.
- 16 Q Could you describe the topographic map
- that you're referring to?
- 18 A Yes. This is essentially it's 1 to
- 19 24,000 scale, an Alquist-Priolo special study
- 20 zones map. It's a published map by the California
- 21 Division of Mines and Mineral Resources.
- 22 It shows locations of active or
- 23 potentially active faults in the area. And it's a
- 24 good base map because it contains very detailed
- 25 topographic information.

So I felt it was a good map to use to
plot both the two unnamed faults that we're
referring to and the location of the power plant

4 site.

Q Was it your conclusion in your supplemental direct testimony that the Rocky Ledge fault is the most important seismic source for the site in terms of the magnitude of seismic shaking?

A Yes, it was. This is a relatively long fault in the area. It's approximately 13 to 20 kilometers long. One of the longer faults in the area.

It's also a very active fault. It's characterized as having holocene activity, or having moved in the last 11,000 years. It's also very near the power plant site, within about 4000 feet of the power plant site.

And so based on the length of the fault, which in general the longer a fault, the larger the maximum earthquake that can occur on that fault, so based on the length of the fault, based on its proximity to the power plant site, and based on its activity, the fact that it's an active fault, having moved in holocene time, it's my professional opinion that this is really the

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1 most important fault in the area with respect to
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- 2 potential seismic sources and design of the
- 3 project.
- 4 Q Does anything in Mr. Pfeiffer's
- 5 testimony change your conclusion regarding the
- 6 importance of the Rocky Ledge fault?
- 7 A No, it doesn't.
- 8 Q Have you reviewed the proposed
- 9 conditions of certification in the final staff
- 10 assessment?
- 11 A Yes, I have.
- 12 Q And where do those proposed conditions
- of certification appear in the final staff
- 14 assessment?
- 15 A They occur in geology mitigation
- measures, GEO-1 and GEO-2.
- 17 Q And have you reviewed the additional
- 18 condition of certification that Mr. Pfeiffer in
- 19 his testimony proposes?
- 20 A Yes, I have.
- 21 Q And what does his proposed condition
- 22 require?
- 23 A Mr. Pfeiffer's proposed condition
- 24 requires three things. Number one, that the
- 25 project will be designed in accordance with CBC,

- or California Building Code chapter 16.
- 2 Secondly, that the engineering geology
- 3 report requires, as part of CBC chapter 16, take
- 4 into account all of the faults shown on the two
- 5 maps we've been referring to this morning, the
- 6 quaternary fault map of the Pit River region, and
- 7 also the quaternary fault map of the Modoc
- 8 Plateau, both of which are unpublished maps by TL
- 9 Sawyer.
- 10 And thirdly, Mr. Pfeiffer stipulates
- 11 that the calculation of peak ground acceleration
- 12 at the power plant site should take into account
- the information presented in the 1998 Piedmont
- 14 GeoSciences report.
- 15 Q Under the conditions that were proposed
- 16 by staff in the final staff assessment, would the
- 17 first part of that, compliance with the California
- 18 Building Code, be required under the current
- 19 conditions?
- 20 A Yes, it would.
- 21 Q With respect to the identification of
- 22 all the faults, what you described as the second
- part of his proposed condition, would you normally
- look at and evaluate all of the faults that were
- listed in his proposed condition?

A Yes, in a cursory fashion. I would

point out that it's certainly acceptable to use

professional experience to look at what the most

important seismic sources are in the area, the

half dozen or so faults that, you know, based on

professional judgment, are the most important

- Q And is that work that would normally be accomplished as part of preparing the engineering geology report that's called for by the staff's proposed conditions of certification?
- 12 A Yes, it would.

seismic sources.

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- 13 Q In your opinion do staff's proposed
 14 conditions of certification address all of the
 15 questions and issues that are raised by the
 16 Piedmont GeoScience report and Mr. Pfeiffer's
 17 testimony?
- 18 A I believe they do, to the extent that
 19 the project must comply with title 24 of the
 20 California Code of Regulations, specifically
 21 chapter 16, the California Building Code, that
 22 requires an evaluation of known active and
 23 potentially active faults in the area.
- 24 And that information, itself, must be 25 accounted for in both the initial and the final

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1 engineering geology report. Again, required as
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- 2 part of chapter 16 of the CBC.
- 3 And it's my opinion, professionally,
- 4 that that information will be part of the project
- 5 as a matter of course. It's required.
- 6 Q In your opinion, based on the proposed
- 7 conditions of certification and the other
- 8 information that you've reviewed, will the Three
- 9 Mountain Power Project comply with applicable
- 10 laws, ordinances and regulations regarding
- 11 geologic impacts?
- 12 A Yes, it will.
- 13 Q And in your opinion are the proposed
- 14 conditions of certification in the final staff
- assessment adequate and appropriate mitigation for
- 16 geological impacts?
- 17 A Yes, they are.
- 18 MR. ZISCHKE: That's all the questions I
- 19 have. Consistent with your direction, I would
- 20 move section 6.17 of the application for
- 21 certification, the chapter of the AFC that deals
- 22 with geology, into evidence.
- 23 HEARING OFFICER BOUILLON: Are you
- 24 moving in his supplementary testimony, as well?
- 25 MR. ZISCHKE: And move in his

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1 supplemental testimony, as well, yes, thank you.
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- 2 HEARING OFFICER BOUILLON: Any
- 3 objection? It will be admitted.
- 4 Mr. Ratliff, do you have any questions?
- 5 MR. RATLIFF: No.
- 6 HEARING OFFICER BOUILLON: Mr. Wolfe.
- 7 MR. WOLFE: Just a couple.
- 8 CROSS-EXAMINATION
- 9 BY MR. WOLFE:
- 10 Q Good morning, Mr. Barrie.
- 11 A Good morning.
- 12 Q Do you have in front of you a copy of
- the proposed conditions of certification GEO-1 and
- 14 GEO-2 from the FSA?
- 15 A No, I do not.
- MR. WOLFE: I'd ask that the applicant
- 17 provide their witness with a copy.
- 18 (Pause.)
- 19 BY MR. WOLFE:
- 20 Q Do you have it in front of you now, Mr.
- 21 Barrie?
- 22 A Yes, I do.
- 23 Q If I can direct your attention to
- 24 condition GEO-1. Do you agree that the referenced
- 25 section of the CBC as appendix to chapter 33,

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1 particularly section 3309.4, which states that
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- 2 prior to the start of construction the project
- 3 owner shall assign to the project an engineering
- 4 geologist certified by the State of California to
- 5 carry out the duties required by that section?
- 6 A Yes.
- 7 Q If you look at condition GEO-2, the
- 8 first sentence, do you agree it says that the
- 9 assigned engineering geologist shall carry out the
- 10 duties required by the 1998 CBC appendix chapter
- 33, section 3309.4 engineered grading requirement?
- 12 A Yes.
- 13 Q And section 3318.1, final reports?
- 14 A Yes.
- Q Would you agree that the portion, rather
- 16 the chapter of the CBC that directly addresses
- 17 seismic safety and design requirements is actually
- 18 chapter 16?
- 19 A I would.
- 20 Q Can you explain then how these two
- 21 conditions which reference requirements for
- 22 engineered grading reports would, in your
- judgment, mitigate all seismic hazards presented
- 24 by this project?
- 25 A I would argue that condition 1 of GEO

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1 number 2, prepare the engineering geology report,
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- 2 that in my opinion the implication there is that
- 3 engineering geology report will include all
- 4 applicable information, also in section 16, as
- 5 well.
- 6 Q So, do you see any language in that
- 7 condition that states that directly?
- 8 A No, I don't.
- 9 Q So your conclusion is that by
- 10 implication the requirement that an engineering
- 11 geology report be prepared in accordance with
- section 3318.1, that, for all intents and
- 13 purposes, would assure full compliance with the
- 14 seismic design requirements of section 16 --
- sorry, chapter 16?
- 16 A Yes.
- 17 MR. WOLFE: I would ask that the
- 18 Committee take official notice of chapter 16 in
- 19 title 24 of the California Code of Regulations
- which contain the seismic design requirements of
- 21 the California Building Code.
- 22 COMMISSIONER LAURIE: Let me interrupt.
- 23 Is it your point that there should be reference to
- 24 chapter 16 in these conditions?
- MR. WOLFE: My point is that it's

1 unclear to us, from the way these conditions are

- 2 written, that there is --
- 3 COMMISSIONER LAURIE: Well, then let's
- 4 address it. Mr. Ratliff, is it staff's position
- 5 that GEO-1 and 2 should be clarified to add
- 6 reference to chapter 16?
- 7 MR. RATLIFF: Well, I guess what I would
- 8 point out is that elsewhere in our conditions we
- 9 require satisfaction of all of the conditions of
- 10 the California Building Code, including chapter
- 11 16, which has the seismic requirements. And
- that's a significant chapter in the building code.
- 13 COMMISSIONER LAURIE: Is there any harm
- 14 to adding the phrase --
- MR. RATLIFF: We have no objection to
- designating it specifically, no.
- 17 COMMISSIONER LAURIE: Okay.
- 18 MR. ZISCHKE: And from the applicant's
- 19 perspective, we will comply with chapter 16 and
- 20 have no objection to specifying that.
- 21 MR. WOLFE: To clarify that this isn't
- just a nitpicky thing, the provisions of chapter
- 23 16 specifically state that seismic hazard
- 24 characteristics are more than just a function of
- 25 seismic zone, and more than just a function of how

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1 close an active fault is.
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- 2 You have to take into account soil
- 3 profile characteristics and the structures
- 4 importance factor --
- 5 COMMISSIONER LAURIE: No need to
- 6 apologize, it's not nitpicky, but we've taken care
- 7 of it.
- 8 MR. WOLFE: Okay.
- 9 COMMISSIONER LAURIE: Or I anticipate
- 10 that the verbiage of GEO-1 and 2 will be clarified
- in order to make reference to chapter 16, that's
- 12 what I've heard.
- MR. WOLFE: I have no more questions.
- 14 HEARING OFFICER BOUILLON: Ms. Crockett.
- 15 CROSS-EXAMINATION
- 16 BY MS. CROCKETT:
- 17 Q Good morning, Mr. Barrie.
- 18 A 'Morning.
- 19 Q A few questions. Initially in your
- 20 filed report, in your original testimony on page
- 21 2, you state that no active faults are known to
- 22 cross the proposed power plant facility footprint,
- 23 correct?
- 24 A That's correct.
- Q And on page 3, based on a review of the

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1 seismic literature and upon published seismic and
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- 2 attenuation relationships, it is estimated that
- 3 ground acceleration at the proposed power plant
- 4 site from a maximum credible earthquake, MCE,
- 5 would be approximately .42 G's, where G represents
- 6 acceleration due to gravity, correct?
- 7 A Correct.
- 8 Q When the Piedmont GeoScience report was
- 9 put forth you went to these quaternary -- am I
- 10 saying that correctly?
- 11 A Quaternary.
- 12 Q -- quaternary maps. Had you looked at
- them prior in your original testimony?
- 14 A I had not.
- 15 Q So without the GeoScience report you
- 16 would not have known about these faults, is that
- 17 correct?
- 18 A Correct.
- 19 Q Is it also correct that in the initial
- 20 report the closest fault that's listed is Rocky
- 21 Ledge, followed by the Susanville number 2 fault
- 22 at six miles?
- 23 A That's correct.
- Q And as Mr. Pfeiffer identified, he has
- 25 brought in five more faults within an eight-mile

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1 radius of the plant?
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- 2 A Correct.
- 3 Q With sufficient magnitudes to be, from
- 4 my point of view, that need to be addressed and
- 5 would concern a credible person who wants to do a
- 6 good job, is that correct?
- 7 A Yes.
- 8 Q So this information is relevant?
- 9 A Yes.
- 10 Q Have you been to the plant site?
- 11 A No, I haven't.
- 12 Q Have you been able to -- if you haven't
- been to the plant site, you've not been able to
- 14 evaluate the ground for activity, is that correct?
- 15 Earth cover, so on and so forth?
- 16 A No, that's not correct.
- 17 Q Okay. Could you tell me?
- 18 A Sure. My evaluation has to do with
- 19 looking at published and unpublished data in
- 20 regards to both regional information on active
- faults, and also site conditions.
- 22 We do know from the published and
- 23 unpublished literature that the site is situated
- on pleistocene volcanic deposits and has
- 25 relatively shallow soils.

1 And we also know that the site is not 2 characterized by shallow groundwater within a few 3 feet of the surface.

And so based on that information I felt
it was appropriate to make the evaluations that I
did in both my testimony and the AFC analysis.

Q So what you did -- let me paraphrase this and see if I've got this correctly -- to your own personal knowledge of this site you don't have any, but you have read published and unpublished documentation about the site? But you have not been to the site to confirm that these are correct or incorrect?

A Could you clarify a little bit what you mean by personal knowledge?

Q Actually being at the site to confirm or deny the reports that you have and had in front of you, I would assume you take them with you, and then review the site, walk the site? I'm not sure what geologists would do.

But have you personally confirmed that these reports are accurate or inaccurate to the site? That's what I'm referring to.

24 A Well, I should say that a former member 25 of the company that I work for did visit the site

on several occasions. And she and I have had a

- 2 number of, you know, very close discussions.
- 3 And I also peer reviewed the document,
- 4 was instrumental in putting it together. But to
- 5 address your question, I would say no, I don't
- 6 have personal, meaning experiential, knowledge of
- 7 the site conditions in the sense that I've walked
- 8 the site and have personally confirmed all the
- 9 published and unpublished information.
- 10 Q You mentioned groundwater. You say
- 11 there's no shallow groundwater. What do you mean
- 12 by shallow?
- 13 A Within a few feet of the surface.
- Q Are you aware that Shasta County --
- 15 excuse me -- the United States Department of
- 16 Agriculture labels that area as four months of the
- 17 year having groundwater within 18 inches of the
- 18 surface?
- 19 A I was not aware of that.
- 20 Q So there's new information out there?
- 21 A Yes.
- MR. ZISCHKE: I don't know that that,
- 23 whatever you were referring to there is in
- 24 evidence. I mean you've mentioned a document that
- 25 I'm not sure relates to the geologic testimony and

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1 would object on that basis. But I don't think
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- it's in evidence before the Committee.
- 3 MS. CROCKETT: I have the USDA soil
- 4 survey map. It may not be with me currently, so
- 5 what would you like me to do about this? Not
- 6 refer to it?
- 7 MR. ZISCHKE: Well, we've had one late
- 8 motion already. I'd object. I mean we --
- 9 HEARING OFFICER BOUILLON: Let me
- 10 interrupt. She asked a question to a witness
- 11 about whether he was familiar with a certain
- 12 alleged fact in some report. He said no.
- 13 She's not introducing that report. She
- 14 doesn't have to introduce that report. The
- 15 question is not evidence.
- Go ahead.
- MS. CROCKETT: Thank you.
- 18 BY MS. CROCKETT:
- 19 Q About the step-over fault, Mr. Barrie,
- 20 what would activate that step-over fault? Could
- 21 it be activated? What is its relationship with
- the Rocky Ledge fault?
- 23 A I don't feel qualified to answer that
- 24 question. Let me perhaps clarify that. I can
- 25 certainly speculate on a couple of possibilities,

1	as	Mr.	Pfeiffer	did	in	his	testimony.
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- 2 But without a very detailed
- 3 investigation involving a greater level than
- 4 anyone has done so far, I would have to say I'm
- 5 not qualified to answer that question.
- 6 Q So, without the specifics of what Mr.
- 7 Pfeiffer mentioned in his testimony, we probably
- 8 wouldn't really know what the interaction between
- 9 the step-over fault and the Rocky Ledge fault
- 10 would be, is that correct?
- 11 A That's correct.
- MS. CROCKETT: Thank you. No more
- 13 questions.
- 14 HEARING OFFICER BOUILLON: Mr. Evans, do
- 15 you have any questions?
- MR. EVANS: No.
- 17 EXAMINATION
- 18 BY COMMISSIONER LAURIE:
- 19 Q Sir, referring to the Burney Group's
- 20 proposed additional conditions of certification,
- 21 what's your understanding of what the third
- 22 condition was? You indicated that you understood
- 23 there were three additional conditions being
- 24 requested.
- 25 A I'm sorry, could you clarify that a

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1	11++1	e bit?

- Q You earlier testified that it was your
 understanding that the Burney Group was seeking
- 4 three additional conditions of certification, is
- 5 my understanding correct?
- 6 A Yes. Perhaps it's semantic. I notice
- 7 in Mr. Pfeiffer's testimony he refers to it as the
- 8 following condition being one. He lists GEO-4.
- 9 And what I did is sort of broke that up into three
- 10 separate parts.
- 11 Q Okay, and what was your third part that
- 12 you had mentioned?
- 13 A Oh, that the information contained in
- 14 the 1998 Piedmont GeoSciences report being used to
- 15 evaluate peak ground acceleration of the site.
- 16 Q And then did you further testify that it
- was your view that that concern was already
- 18 addressed in the existing conditions?
- 19 A Yes.
- 20 Q And could you make reference to the
- 21 existing conditions and indicate where therein
- that point would have been contained?
- 23 A I would argue in GEO-2 of the conditions
- 24 for certification, is that -- am I on the right
- 25 track? Is that what you're referring to? Okay.

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1 Item number 1, preparation of an
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- 2 engineering geology report. In my opinion, for
- 3 the sake of completeness, that report would need
- 4 to include all relevant and applicable
- 5 information. And now that this 1998 report, is a
- 6 matter of public record, has been found, it would
- 7 certainly include the information contained in
- 8 that report.
- 9 Q Thank you.
- 10 COMMISSIONER LAURIE: Mr. Hearing
- 11 Officer, a question of the applicant. This
- 12 witness made use of a map that I think has not
- 13 been moved into evidence. Is it your intent to so
- 14 do that?
- MR. ZISCHKE: I believe that the map,
- 16 the topographic map in question is part of chapter
- 17 6.17 of the application. And it's labeled in the
- application for certification as figure 6.17-5.
- 19 COMMISSIONER LAURIE: Is that your
- 20 understanding, Mr. Bouillon?
- 21 HEARING OFFICER BOUILLON: I believe it
- is. Let's ask the witness just to be sure.
- MR. BARRIE: That's correct.
- 24 MR. ZISCHKE: And I have some questions
- on redirect if the other questions are --

1 HEARING OFFICER BOUILLON: One second.

- 2 Go ahead.
- 3 REDIRECT EXAMINATION
- 4 BY MR. ZISCHKE:
- 5 Q In preparing the final geology report
- 6 that is called for, would all of the faults and
- 7 information that are evaluated in the Piedmont
- 8 GeoSciences report be considered in compiling that
- 9 final geology report?
- 10 A In my opinion they would, yes.
- 11 Q You also indicated, I believe, in your
- 12 testimony that while you did not personally visit
- 13 the site, someone from your firm did visit the
- 14 site?
- 15 A Yes.
- 16 Q And you also indicated that in addition
- 17 to the site visit, that earthquake maps such as
- 18 the map of earthquake fault zones that shows the
- 19 Alquist-Priolo zones were reviewed in preparing
- 20 the analysis in the application for certification.
- 21 Is it standard practice to review those
- 22 sorts of faults maps in preparing a geologic
- 23 analysis?
- 24 A Yes, it is.
- MR. ZISCHKE: I have no further

1	questions,	thank	you.

- 2 HEARING OFFICER BOUILLON: Mr. Ratliff?
- 3 MR. RATLIFF: No.
- 4 HEARING OFFICER BOUILLON: Mr. Wolfe?
- 5 MR. WOLFE: No.
- 6 HEARING OFFICER BOUILLON: Ms. Crockett,
- 7 do you have any recross on the topics that have
- 8 just been testified to?
- 9 MS. CROCKETT: I may. Could I reserve
- 10 that possibly for later, or must I complete my
- 11 questioning of the witness now?
- 12 HEARING OFFICER BOUILLON: We're
- 13 prepared to excuse this witness if you don't have
- 14 any questions.
- MS. CROCKETT: Okay. Let me ask this
- 16 question, thank you.
- 17 RECROSS-EXAMINATION
- 18 BY MS. CROCKETT:
- 19 Q Mr. Barrie, as Mr. Zischke had just
- 20 stated that all the data would be reviewed, but
- 21 there is no stipulation of specific data to be
- reviewed, is that correct? Other than what's
- 23 mentioned in the AFC?
- 24 A That's correct.
- 25 Q So without the stipulation or an

1 addition to requirements of certification --

- 2 conditions of certification, there is actually no
- 3 quarantee that this material will be reviewed?
- 4 A Well, I would say yes, there's no
- 5 guarantee. I would also add that any competent
- 6 engineering geologist would be required ethically
- 7 and by his or her profession to take this
- 8 information into account.
- 9 Q And for reassurance Mr. Pfeiffer agrees
- 10 with you, I'm not quite so trusting. Does it
- 11 place an undue burden on the engineering geologist
- to have this data specified to be reviewed?
- 13 A I apologize, I'm not quite sure what
- 14 you're getting at.
- 15 Q To add these conditions of certification
- 16 that Mr. Pfeiffer has requested in his testimony,
- in your opinion does this place an undue burden on
- 18 the engineering geologist if he's already going to
- 19 review this?
- 20 A No.
- 21 Q So in actuality just to go ahead and
- 22 specify that these do need to be reviewed doesn't
- in any way place more burden on the engineering
- 24 geologist?
- 25 A No, it does not. In my opinion it

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doesn't necessarily add anything, either.
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- 2 Q But it could be a redundant safety
- 3 measure --
- 4 HEARING OFFICER BOUILLON: Ms. Crockett,
- 5 I think you've made your point with regard to
- 6 that.
- 7 MS. CROCKETT: Okay, thank you.
- 8 HEARING OFFICER BOUILLON: Do you have
- 9 any other questions?
- 10 MS. CROCKETT: That's my final question.
- 11 MR. ZISCHKE: May I ask one further
- 12 question of redirect?
- 13 HEARING OFFICER BOUILLON: If it is
- 14 about Ms. Crockett's questions.
- MR. ZISCHKE: Well, I --
- 16 HEARING OFFICER BOUILLON: Because
- 17 that's the only recross.
- 18 FURTHER REDIRECT EXAMINATION
- 19 BY MR. ZISCHKE:
- 20 Q In response to those questions is this
- 21 Piedmont GeoSciences report now known such that it
- 22 would be considered in the final geology report?
- 23 A Yes, it is.
- MR. ZISCHKE: Thank you.
- 25 HEARING OFFICER BOUILLON: The witness

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- 1 is excused.
- 2 Mr. Ratliff.
- 3 MR. RATLIFF: Yes, the staff has a
- 4 witness in geological engineering, geological
- 5 resources, but we also have a witness that we
- 6 brought thinking perhaps we weren't sure what the
- 7 scope of the inquiry was. So we brought a witness
- 8 in facility design, as well.
- 9 We think although it's principally an
- issue of geology, if you wish we can have the two
- 11 testify as a panel and have any questions
- 12 addressed to either or both of these witnesses.
- 13 But certainly that determination is yours.
- Do you want to have both the facility
- design witness and the geological and
- 16 paleontological witnesses testify today?
- 17 HEARING OFFICER BOUILLON: Yes, we
- 18 would. Have them testify as a panel.
- 19 MR. RATLIFF: The staff witnesses then
- 20 will be Steve Baker and Robert Anderson. Steve
- 21 Baker is the facility design witness, and Robert
- 22 Anderson is the geological and paleontological
- 23 resources witness.
- Whereupon,
- 25 ROBERT ANDERSON and STEVE BAKER

were called as witnesses herein, and after first

- 2 having been duly sworn, were examined and
- 3 testified as follows:
- 4 MR. RATLIFF: Commissioners, what I
- 5 would like to do is begin with the geological and
- 6 paleontological resources witness, and have him
- 7 testify first, and then have Mr. Baker testify
- 8 second, if that's acceptable.
- 9 HEARING OFFICER BOUILLON: That's fine.
- MR. RATLIFF: Okay.
- 11 DIRECT EXAMINATION
- 12 BY MR. RATLIFF:
- 13 Q Mr. Anderson, did you prepare that
- 14 portion of the staff FSA titled geological and
- 15 paleontological resources?
- 16 A Yes, I did.
- 17 Q Is that testimony true and correct to
- 18 the best of your knowledge and belief?
- 19 A I have an errata to introduce; on page
- 20 293 of the FSA there's a typographical error on
- 21 line three. Should be table 6-17-1 instead of 6-
- 22 17-11. But other than that, that's it.
- 23 Q Would you summarize your position with
- 24 the staff concerning the topic that you have
- 25 prepared the testimony for today? What is your

- 1 position with the staff?
- 2 A I'm an associate engineering geologist
- 3 with the engineering office of the California
- 4 Energy Commission's Energy Facility Siting and
- 5 Environmental Protection Division. And in that
- 6 role I review siting cases relative to geological
- 7 resources, geological hazards, paleontological
- 8 resources and surface water hydrology issues.
- 9 And within our office I also am the
- 10 contract manager for contracts regarding electric
- 11 systems seismic safety and reliability contracts
- for our PIER program.
- 13 Q Are you a registered geologist?
- 14 A Yes, I am.
- 15 Q And are you a certified engineering
- 16 geologist?
- 17 A Yes, I am.
- 18 Q Can you summarize your testimony briefly
- 19 with whatever specific detail you think necessary,
- given the circumstances.
- 21 A Focusing on the issue of faulting and
- 22 seismicity, to keep this relatively brief, I have
- 23 been looking in the Burney area, was up at the
- 24 site this summer. Took a look at the site, walked
- 25 the site, drove the site for the main power plant.

And didn't see any faults in the

surface. There's no known faults that are

published to cross the surface of the proposed

power plant footprint.

Have been reviewed, the report by

Piedmont GeoSciences, the supplement the FSA, as

it came in very very late into the process of

going through our hearing process for this

particular site.

And judged that the Piedmont GeoSciences report looked like it was fairly well written and reasonable. With that being said, also looked at the requirements of the Uniform Building Code,

California Building Code with respect to faulting and seismicity for a power plant site. And in particular the minimum requirements for such a proposed project.

And in that case we have the 10

percent -- the 50 year -- a 10 percent chance of
an earthquake occurring, 50-year interval, which

puts it at about a unity of about 475 years. This
is a lower type of earthquake ground motion than
the maximum credible earthquake, actually proposed
by the applicant. So the applicant's position is
more conservative from an engineering perspective

1 and a geology perspective than was actually

- 2 required under the UBC, CBC.
- 3 And after looking at the Piedmont report
- 4 with what we had known before, and also looking at
- 5 the fault evaluation report by Willis of the
- 6 California Division of Mines and Geology 1991,
- 7 which helped set up the Alquist-Priolo zone map
- 8 that was mentioned earlier, that there appears to
- 9 be no faults that would continue through the site.
- 10 And, as such, that our conditions would
- 11 stand, GEO-1 and GEO-2. And that the practice
- 12 under chapter 33 of the Uniform Building Code and
- 13 the California Building Code would include chapter
- 14 16 requirements, as well.
- 15 Q Are the conditions in your testimony
- that would apply to design of this project
- 17 sufficient in your view to protect -- to make
- 18 this -- are they adequate to provide a sufficient
- design in light of the Rocky Ledge fault?
- 20 A We're looking at geological hazard
- 21 versus the geological risk here. And what this
- is, this would allow the engineer of record for
- 23 the final design to be able to have information
- 24 that they could develop design criteria with
- 25 respect to seismicity.

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1 So it's adequate to that point. And
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- then it's up to the engineer of record to develop
- 3 time histories and other materials that are
- 4 germane to the actual final seismic design for the
- 5 final design of the plant which comes after
- 6 licensing.
- 7 Q Have you read Mr. Pfeiffer's testimony?
- 8 A Yes, I have.
- 9 Q Does that change the conclusions in your
- 10 testimony in any way?
- 11 A No, it doesn't.
- 12 Q Why does it not?
- 13 A Basically what we're looking at is
- information that has fine-tuned what we're seeing
- in the area, but the overall picture of whether or
- 16 not this site is buildable for a thermal power
- 17 plant, that is what I was looking at the basic
- 18 question in the end.
- 19 In my opinion, it's yes, the site is
- 20 buildable. And it just happens to be when we go
- 21 through the final engineering, required
- 22 engineering geology report for the site, and the
- geologic report still to come, which may develop
- 24 additional information, may not develop additional
- 25 information, that is where the design criteria for

final design for the plant will come from. And

- 2 not in the preliminary geologic information that
- 3 we have.
- 4 Q Thank you.
- 5 MR. RATLIFF: I would like at this time
- 6 to continue with Mr. Baker.
- 7 DIRECT EXAMINATION
- 8 BY MR. RATLIFF:
- 9 Q Mr. Baker, you prepared the staff
- 10 testimony in the final staff assessment titled
- 11 facility design, is that correct?
- 12 A I prepared a portion of it and the
- entirety of it was prepared under my direction.
- 14 Q And could you explain your position with
- the staff, please?
- 16 A The subject area of facility design is
- 17 examined for the purpose of assuring that the
- 18 applicant is aware of the applicable laws,
- 19 ordinances, regulations and standards for the
- 20 design and construction of the facility.
- 21 And also it's a mechanism for staff to
- 22 create a monitoring program through our conditions
- of certification so that we can insure that, in
- fact, these applicable LORS are complied with
- 25 during the design and construction of the project.

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1 Q And, again, Mr. Baker, could you
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- 2 describe briefly your position with the staff?
- 3 A I'm the senior technical lead person for
- 4 the facility design unit of the engineering office
- of the siting division. I prepare testimony on
- 6 power plant efficiency and reliability, on noise.
- 7 I prepare a portion of the facility design
- 8 testimony, and I supervise the preparation of all
- 9 of those areas plus geology, paleontology and
- 10 hazard materials handling.
- 11 Q You are a registered engineer, is that
- 12 correct?
- 13 A Yes, sir, registered as a mechanical
- 14 engineer in California.
- 15 Q Thank you. You have read Mr. Pfeiffer's
- 16 testimony?
- 17 A Yes, I have.
- 18 Q Does it change the conclusions of your
- 19 testimony in any way?
- 20 A No, it does not.
- 21 Q Can you explain briefly why?
- 22 A I consulted with my geologist, Mr.
- 23 Anderson, and he explained to me why Mr.
- 24 Pfeiffer's testimony does not change any of the
- design tenets of this project. Why Mr. Pfeiffer's

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1 testimony will not require that the plant be
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- designed any more stringently than would have been
- 3 the case without that testimony.
- 4 Based on his evaluation from the
- 5 standpoint of geologist, and based on my
- 6 understanding of the building code and other
- 7 applicable LORS, I agree, and I believe that Mr.
- 8 Pfeiffer's testimony, while interesting and
- 9 germane, makes no difference in the staff's
- 10 recommendations.
- 11 Q Do the requirements in facility design
- 12 require building the power plant to comply with
- 13 all the provisions of the California Building
- 14 Code?
- 15 A Yes, our condition General-1 requires
- 16 that the project be designed to this California
- Building Code, which means the entire code is
- 18 applicable. That includes section 16.
- 19 Q Thank you.
- 20 MR. RATLIFF: I have no other questions
- 21 for these witnesses. They're available for cross-
- 22 examination.
- 23 HEARING OFFICER BOUILLON: Mr. Zischke.
- MR. ZISCHKE: No questions, thank you.
- 25 HEARING OFFICER BOUILLON: Mr. Wolfe.

⊥	MK.	MOTEF.	MO	questions,	assuming	we

- 2 remain in agreement that either or both of the
- 3 geology conditions are going to reflect the
- 4 statement which may -- and the witnesses can be
- 5 redundant, but I think it would be helpful to us
- 6 that this project will be built in accordance with
- 7 chapter 16 specifically of the CBC.
- 8 MR. RATLIFF: Staff has no objection to
- 9 that.
- 10 HEARING OFFICER BOUILLON: Ms. Crockett.
- 11 MS. CROCKETT: Thank you, just a couple
- 12 of quick questions.
- 13 CROSS-EXAMINATION
- 14 BY MS. CROCKETT:
- 15 Q Mr. Anderson, --
- 16 A Yes, ma'am.
- 18 property last summer did you notice anything to
- indicate that there was a fault close by? Did you
- go between the project site and Rocky Mountain,
- 21 the Rocky Mountain Ledge fault, or did you stay
- specifically on the plant site?
- 23 A We stayed within the confines in general
- of the plant site except for when we went off on a
- 25 surface road reconnaissance, if you will, of the

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1 area, which included a driving on -- roads, and a
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- 2 couple of the more improved dirt roads in the
- 3 vicinity to the north and to the east, which would
- 4 include the area within the confines of the Rocky
- 5 Ledge fault. Also, the 299 corridor.
- 6 Q I'm a novice, so you're going to have to
- 7 explain this to me. As a geologist, when you're
- 8 walking around looking, can you actually see a
- 9 fault?
- 10 A It depends on the type of fault, and it
- 11 depends on where the fault is actually located
- 12 within a site. Sometimes you can. Sometimes what
- 13 you see is what's called a lineation. And the
- lineation, itself, could not necessarily be a
- 15 fault, but sometimes is indicative of a fault.
- 16 An aerial photo review of the site, and
- 17 also of walking the site this summer, didn't
- happen to pick up on any lineations that would
- 19 warrant investigation for -- fault investigation
- 20 for that particular proposed power plant
- 21 footprint. Didn't see anything out there that
- 22 would warrant that, no.
- Q Did your aerial photographs pick up
- these unnamed step faults?
- 25 A We saw a lineation 2000 feet to the

1 north-northeast, but that doesn't necessarily mean

- 2 it's a fault.
- 3 Q Okay, I am not clear on this
- 4 terminology, this is new to me. What could
- 5 possibly be the difference between a lineation --
- 6 that's the indication, is that correct, which you
- 7 said the lineation may be a visual indication of a
- 8 fault?
- 9 A Sometimes.
- 10 Q Sometimes. So, you really had no
- indication or any concern that you needed to delve
- any further into the site situation for seismic
- hazards and safety?
- 14 A We look up lengths of lineations,
- 15 patterns of lineations relative to the soil. The
- 16 area that's west of the Hat Creek Fault Zone is
- 17 considered fairly active seismically. What we're
- 18 looking at is this particular area doesn't warrant
- 19 anything of length. And length is directly
- 20 related through several different, well-
- 21 established relationships as to a possible size
- for magnitude earthquake.
- 23 Which then is related to ground
- 24 accelerations which an engineer would use for
- 25 designing a plant.

1 Turned out to be that these are very
--

- 2 small lineations, and as such, even if they were
- faults, aren't inclined to generate earthquakes of
- 4 significance.
- 5 There have been reported earthquakes in
- 6 the area in the magnitude 4 to 4.5 range
- 7 historically. But those are not of the design
- 8 level events that are typically taken into
- 9 consideration.
- 10 So, yes, we have looked at it. And,
- 11 yes, we are aware of what's in the area. The
- 12 lineations, themselves, didn't warrant any further
- 13 continued looking at them at that time. And I
- don't think that they do at this time.
- 15 Q You stated on page 293 of your testimony
- 16 the potential of surface rupture on a fault of the
- 17 power plant footprint is considered to be very low
- 18 since no faults are known to cross the proposed
- 19 power plant location.
- 20 Do you still feel comfortable with that
- 21 statement?
- 22 A Yes.
- 23 Q You feel there's absolutely no chance of
- a ground surface rupture?
- 25 A I didn't say that. In geology you don't

- 1 use words like absolutely.
- 2 O I can understand. So to include these
- 3 specific requirements that Mr. Pfeiffer is asking
- for safety's sake, even though you feel they're
- 5 redundant, would they place a hardship on the
- 6 staff?
- 7 A On me? No.
- 8 Q On any, on the design, on the
- 9 engineering geologist for the applicant?
- 10 A The applicant's engineer? No.
- 11 MS. CROCKETT: Thank you, no more
- 12 questions.
- 13 HEARING OFFICER BOUILLON: Mr. Evans.
- 14 Any re --
- 15 EXAMINATION
- 16 BY COMMISSIONER LAURIE:
- 17 Q Mr. Anderson, applicant's witness
- 18 testified that in his opinion all of the requested
- 19 items brought forth in Mr. Pfeiffer's report were
- 20 already included in GEO-1 and 2. Do you share
- 21 that view?
- 22 A Yes.
- Q Thank you.
- 24 HEARING OFFICER BOUILLON: Mr. Ratliff,
- do you have any redirect?

1	MTD	RATLIFF:	No.
	MR.	KAILIFF.	мо.

- 2 HEARING OFFICER BOUILLON: I'm prepared
- 3 to excuse the witness. Do you want to offer --
- 4 MR. RATLIFF: Yes, I would like to move
- 5 the FSA sections for both Mr. Baker in facility
- 6 design, and Mr. Anderson in geological and
- 7 paleontological resources into evidence, please.
- 8 HEARING OFFICER BOUILLON: As well as
- 9 their qualifications?
- 10 MR. RATLIFF: As well.
- 11 HEARING OFFICER BOUILLON: Any
- 12 objection?
- They will be entered into evidence. The
- 14 witnesses are excused, thank you.
- We'll take a short break, about 10
- 16 minutes. We'll come back here at 25 till by that
- 17 clock.
- 18 (Brief recess.)
- 19 HEARING OFFICER BOUILLON: Back on the
- 20 record. First of all, let me make a general
- 21 comment. One person, Ms. Fox, who is on the
- teleconference, is having trouble hearing. We've
- 23 made some adjustments to where everything is for
- 24 the speakerphone. But I'd also like to remind
- 25 each of the counsel to have their witnesses speak

1	up	as	loudly	as	possible	in	an	effort	to	be	heard	l.
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- 2 And with that, Ms. Crockett, are you
- 3 ready to call Mr. Pfeiffer?
- 4 MS. CROCKETT: Thank you. Mr. Pfeiffer.
- Whereupon,
- 6 JOHN PFEIFFER
- 7 was called as a witness herein, and after first
- 8 having been duly sworn, was examined and testified
- 9 as follows:
- 10 DIRECT EXAMINATION
- 11 BY MS. CROCKETT:
- 12 Q Thank you. Mr. Pfeiffer, were your
- 13 qualifications listed in your prehearing
- 14 conference statement?
- 15 A Yes, they were.
- 16 Q Is the testimony that we're reviewing
- 17 now your testimony?
- 18 A Yes, it is.
- 19 Q Do you have any changes to this
- 20 testimony?
- 21 A Only one typographic error, the
- 22 condition of certification that I listed at the
- end of GEO-4 I should have listed as GEO-3.
- Q Thank you. Mr. Pfeiffer, would you give
- 25 the Commissioners and those present a brief

- 1 summary of your testimony?
- 2 A Yes. My testimony concerns the
- differences between the testimony and the Three
- 4 Mountain Power documents that have been presented
- 5 to date in comparison to the information that I
- 6 encountered in the Piedmont GeoSciences report.
- 7 Q Can you list some of those differences?
- 8 A Yes. They've largely been identified in
- 9 the testimony already. To go back over one of the
- 10 differences was a higher magnitude potential
- 11 earthquake on the Rocky Ledge fault; two unnamed
- 12 fault segments in closer proximity to the Three
- Mountain Power Plant site; and several other
- 14 potential seismic sources listed in the Burney
- 15 Valley area.
- 16 Q In Mr. Anderson's testimony about the
- 17 lineation are we -- this is an opinion from you or
- 18 a supposition, are we talking about the same area,
- 19 the lineation and the proposed step fault that is
- 20 mentioned in the PG&E GeoScience?
- 21 A I believe we are. We're talking about
- 22 something northeast, slightly northeast of the
- 23 project site.
- Q So in reality this area is still pretty
- vague?

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1 A This area, do you mean pertaining to
2 those fault segments --
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3 Q The fault segments or the lineations, no

one has really specifically -- has them clearly

5 defined?

- ${\tt 6} \hspace{1cm} {\tt A} \hspace{1cm} {\tt It does seem vague to me.} \hspace{1cm} {\tt It seems to} \hspace{1cm}$
- 7 me that more information is needed, perhaps from
- 8 the person who mapped those faults, because it
- 9 does seem vague. Those who have been to the site
- 10 did not see evidence of those, and yet Mr. Sawyer,
- in his report, did see evidence to warrant mapping
- it. So, it does seem that there's some vagueness
- 13 that should be clarified where exactly those fault
- segments are in relation to the site.
- 15 Q Are you comfortable with prior testimony
- 16 that states emphatically that these fault segments
- do not cross the footprint of the plant site?
- 18 A I would be -- I guess my answer is I'm
- 19 not entirely comfortable with that due to the
- vagueness, due to the fact that the scale of Mr.
- 21 Sawyer's maps it would be difficult to determine
- 22 exactly. And I suspect at the site, itself,
- there's been substantial earth movement. So, no,
- I'm not entirely comfortable with that.
- 25 Q The applicant has stated that this

1 report does not change any of their conclusions

- 2 regarding geological hazards, and that a seismic
- 3 zone 3 is the correct zone to design this plant
- 4 for.
- 5 Do you think seismic zone 3 is the
- 6 correct zone designation for the plant design?
- 7 A Well, I'd have to say it's not my place
- 8 to determine that. The concern that it raises in
- 9 my mind is that if the Piedmont report presents
- 10 additional information on the seismic character of
- 11 the area, and on the seismic hazards that are
- 12 present there, and it's mainly my concern that
- that information be taken into account for public
- safety's sake to insure that either it is within
- zone 3 or that additional measures need to be
- 16 taken.
- 17 Q You had referred in your testimony that
- 18 you had looked at the AFC and the final staff
- 19 assessment, the prior testimony all feels that
- 20 GEO-1 and GEO-2 would cover this. In your review
- 21 of that did you see anything specific that would
- 22 automatically require the engineering geologist to
- refer to section 16 of the building code?
- 24 A No, I did not.
- Q Does this concern you?

1 A Well, with the prior testimony to date,

- 2 several people have stated emphatically that
- 3 section 16 is very definitely a part of that. And
- 4 that puts me at -- my main concern at this point
- 5 is the information in the Piedmont report is
- 6 incorporated into the engineering geologist's
- 7 report.
- 8 Q One other final question. Do you know
- 9 the difference in peak ground acceleration between
- 10 what was testified and what the revised testimony
- 11 then indicated, and what was your calculation on
- the difference on that? It went from a .42 to a
- 13 .56 G.
- 14 A It was about a 25 percent increase in
- 15 the ground acceleration at the site.
- 16 Q Is that considered substantial in
- designing anything, a 25 percent difference in
- 18 calculations?
- 19 A Well, I think to say that it's
- 20 significant or not I think that gets into the
- 21 engineering aspects that are beyond my
- 22 qualifications. It seems significant to me.
- 23 Q And so for safety's sake you would like
- all of this to be specifically denoted to be
- included so that these calculations are reviewed?

1	A	Yes.	Ι	would	like	to	see	that.

- 2 Q Thank you.
- 3 MS. CROCKETT: I will open it for
- 4 questions.
- 5 HEARING OFFICER BOUILLON: Before we
- 6 begin, Mr. Zischke, I'd like to ask a question.
- 7 EXAMINATION
- 8 BY HEARING OFFICER BOUILLON:
- 9 Q The report which you've referred to as
- 10 the Piedmont GeoSciences report, there's also
- 11 these two quaternary fault maps with an
- 12 explanation of them that seems to be a separate
- document. Is that a part of the report?
- 14 A I've been interpreting that as part of
- 15 the report, and I'm not sure if that's correct or
- not. So, for my purposes in reference I've been
- including that as part of the report.
- 18 HEARING OFFICER BOUILLON: So that
- 19 everyone's clear on this, the rest of us will do
- that also, although they don't seem to have a
- 21 staple through the whole package. The explanation
- 22 for quaternary fault map of the Pit River area to
- 23 which is attached two quaternary fault maps will
- 24 be deemed, for purposes of this hearing, a part of
- 25 the Piedmont GeoSciences report, which has been

1	marked	for	identification	as	exhibit	59.

- 2 Mr. Zischke, cross-examination?
- MR. ZISCHKE: Yes, just a few questions,
- 4 Mr. Pfeiffer.
- 5 CROSS-EXAMINATION
- 6 BY MR. ZISCHKE:
- 7 Q Do you live in Burney?
- 8 A I live in Castle, just east of Burney.
- 9 Q And are you a member of the Burney
- 10 Resources Group?
- 11 A Yes, I am.
- 12 Q In your testimony I believe you
- indicated that the Piedmont GeoScience report was
- 14 not generally known. Do you still believe the
- 15 report is not known, now having been introduced
- 16 into testimony and discussed among the various
- 17 witnesses today?
- 18 A I would say that within these
- 19 proceedings it is known.
- 20 Q There's been some reference in the prior
- 21 testimony to a step fault or a step-over fault,
- 22 and I believe you refer in your testimony to a
- 23 possible step-over fault.
- 24 That reference is to the two unnamed
- 25 faults in the Piedmont GeoSciences report, is that

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1 correct? And those two unnamed segments are
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- 2 mapped in the first of the attached map, is that
- 3 right?
- 4 A Yes. I believe they're shown on both
- 5 attached maps.
- 6 Q Okay. Are those two unnamed fault
- 7 segments located with any less precision that the
- 8 other faults that are mapped on the attached maps?
- 9 A I couldn't say having not prepared the
- maps.
- 11 MR. ZISCHKE: Thank you, no further
- 12 questions.
- 13 HEARING OFFICER BOUILLON: Mr. Ratliff.
- MR. RATLIFF: Just a couple questions.
- 15 CROSS-EXAMINATION
- 16 BY MR. RATLIFF:
- 17 Q Hello, Mr. Pfeiffer.
- 18 A Good morning.
- 19 Q I wanted to ask you, is there anything
- 20 in your written testimony that indicates that the
- 21 proposed plant site is underlain by an active
- 22 fault?
- 23 A I think in my testimony I made the
- 24 statement that perhaps one of those two unnamed
- 25 fault segments may cross the power plant site.

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1 Q So, do you believe that there is an
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- 2 active fault underneath the project plant site?
- 3 A I believe it's in that area. From the
- 4 map, from the scale of the map I could not tell
- for sure. It seems -- it shows the fault segment
- 6 just east of the railroad alignment of the, I
- 7 think it's the McLeod River Railroad, which the
- 8 project site, as I understand it, is also just
- 9 east of the railroad alignment and just north of
- 10 highway 299.
- 11 Q And you're referring to one of the
- 12 quaternary maps that are part of the exhibit,
- 13 or --
- 14 A Yes.
- 15 Q Okay. And what is the basis for your
- belief that the fault is actually under the power
- 17 plant site?
- 18 A The basis is that on that quaternary
- 19 fault map it has the appearance to me that it is
- 20 across the plant site, or in very close proximity
- 21 to it.
- Q Are there any --
- 23 A And I will maintain that statement. I
- 24 am not saying that I -- the appearance to me is
- 25 that it is either under the plant site or in close

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1 proximity to it, being to the east. I couldn't
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- 2 say more definitively than that.
- 3 Q Are there any geological features,
- 4 physical features that would confirm your
- 5 conclusion?
- 6 A Well, I'm assuming -- there's nothing
- 7 that I have seen. I'm assuming that Mr. Sawyer
- 8 mapped those fault segments based on some type of
- 9 geomorphic evidence in the field.
- 10 Q Okay, --
- 11 A And so it should be possible to more
- 12 closely delineate where it is in relation to the
- 13 site. And it seems that that would be beneficial
- 14 for not just the site, but for gasline connections
- to the site. Have I answered your question?
- 16 Q Yes, thank you. In response to Ms.
- 17 Crockett's questions you said that it was not my
- 18 place to determine whether seismic zone 3
- 19 requirements that would apply in this instance, is
- 20 that correct?
- 21 A Yes, that's correct.
- 22 Q Is that because the UBC determines that,
- 23 I'm sorry, the California Building Code determines
- 24 that?
- 25 A Well, it's because I don't have the

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- 2 specifically the risks, whether it -- well, to
- 3 state how the ground motion there would compare
- 4 with what's allowed for in a seismic zone 3.
- 5 Q I see.
- 6 MR. RATLIFF: Thank you.
- 7 HEARING OFFICER BOUILLON: Mr. Wolfe?
- 8 MR. WOLFE: Yes, just a couple
- 9 clarifying questions.
- 10 CROSS-EXAMINATION
- 11 BY MR. WOLFE:
- 12 Q The engineering geology report required
- by the CBC something that would necessarily
- 14 require specific identification of a location of
- this fault in relation to the --
- 16 A Well, from what I've seen in looking
- 17 through the building codes, as far as the
- 18 requirements that the code specifies, it seems
- 19 like in chapter 16 they make specific reference to
- an engineering geology report for the purposes of
- 21 characterizing ground motion at the site.
- 22 Elsewhere in chapter 33 it didn't make
- 23 reference to that type of information in the
- 24 report.
- I would agree with Mr. Barrie's

1 testimony that professional prudence, based on the

- 2 engineering geologists that I've worked with, that
- 3 would generally be information that you would
- 4 include.
- 5 But as far as specific regulations in
- 6 the building codes that I've looked through I did
- 7 not see that specific requirement everywhere.
- 8 Q So in the absence of such a specific
- 9 requirement, in your opinion would it be helpful
- 10 to include, as a condition, that the engineering
- 11 geology report specifically identify the location
- of this unnamed fault in relation to the site
- footprint to confirm whether or not it actually
- 14 crosses it?
- 15 A Yes, it would be helpful.
- 16 Q Thank you.
- 17 HEARING OFFICER BOUILLON: Any redirect?
- 18 REDIRECT EXAMINATION
- 19 BY MS. CROCKETT:
- Q Mr. Pfeiffer, these unknowns cause you
- 21 concern?
- 22 A Yes.
- 23 Q And you would feel -- would you feel
- 24 better if there was specific reference in the
- 25 conditions of certification that specifically

stated both 16, and in specifically the reference

- 2 section in your testimony?
- 3 A Restate that?
- 4 Q Would you, having section 16 of the
- 5 building code, and specifically those sections of
- 6 that building code that were cited in your
- 7 testimony, as stated for conditions of
- 8 certification, would that resolve a lot of your
- 9 uneasiness about the plant design?
- 10 A Yes, it would.
- 11 Q Thank you.
- MS. CROCKETT: No more questions.
- 13 HEARING OFFICER BOUILLON: Does anyone
- have any questions based on that?
- Would you like to offer --
- MS. CROCKETT: I will ask that the
- 17 testimony and the PG&E report done by Piedmont
- 18 GeoSciences be entered into evidence.
- 19 HEARING OFFICER BOUILLON: Any
- 20 objection?
- 21 MR. ZISCHKE: No objection.
- MR. RATLIFF: No.
- 23 HEARING OFFICER BOUILLON: That's
- 24 entered. Are you also offering Mr. Pfeiffer's
- 25 testimony?

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1 MS. CROCKETT: I thought I did state
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- testimony, but I will also offer Mr. Pfeiffer's
- 3 testimony into evidence -- ask that it be put into
- 4 evidence.
- 5 HEARING OFFICER BOUILLON: Any
- 6 objections.
- 7 MR. ZISCHKE: I've no objection.
- 8 MR. RATLIFF: No.
- 9 HEARING OFFICER BOUILLON: That will
- 10 also be entered. Thank you, Mr. Pfeiffer.
- 11 MR. PFEIFFER: Thank you.
- 12 HEARING OFFICER BOUILLON: I believe
- that concludes the hearings on the topic of
- 14 geological resources.
- 15 It's my understanding that we have a
- 16 substantial number of topics upon which there are
- 17 stipulations as to the admission of testimony, and
- 18 I'd like to take that up at this time.
- 19 Is one of the attorneys prepared to make
- 20 a statement for the record as to which sections
- 21 are being stipulated to?
- MS. COTTLE: It's our understanding that
- 23 the parties have agreed to take testimony by
- 24 stipulation for several areas, and I'll just read
- 25 the list that I have.

Τ	Project description, worker safety and
2	fire protection, transmission line safety and
3	nuisance, hazardous materials, waste management,
4	traffic and transportation, cultural resources,
5	facility design, power plant reliability, power
6	plant efficiency, the conditions of compliance and
7	general conditions, public health.
8	I believe that's all, that 12 according
9	to my count.
10	HEARING OFFICER BOUILLON: With regard
11	to the issues of public health I understand that
12	there are some issues involving air emissions that
13	are going to be continued to the hearings on air
14	and water and biological resources and
15	alternatives.
16	But with that exception, are the parties
17	in agreement that the testimony of both the staff
18	and the applicant, as listed in their prehearing
19	conference statements,
20	MR. WOLFE: Just for clarity's sake if
21	the applicant could quickly summarize what public
22	health topic are proposed to be entered by
23	stipulation? I don't know what remains other than
24	air quality, frankly, but

MS. COTTLE: I guess that's everything

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1 but the air issues. I'm not sure how else to
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- 2 delineate that.
- 3 MR. WOLFE: Which are?
- 4 HEARING OFFICER BOUILLON: I think
- 5 you're correct, Mr. Wolfe, that they all deal with
- 6 the air that I've read.
- 7 MR. WOLFE: I think it would be easier
- 8 just to put all public health to phase two, and
- 9 not stipulate to it at this time.
- 10 HEARING OFFICER BOUILLON: Why don't we
- defer the stipulation on public health. Mr.
- 12 Ratliff?
- 13 MR. RATLIFF: I think with that
- 14 exception we would stipulate to all of those
- 15 topics that have been listed by the applicant.
- 16 HEARING OFFICER BOUILLON: All right.
- 17 As indicated by the AFC, the testimony of the
- 18 applicant submitted earlier, those sections
- 19 related to those topics will be admitted, as will
- 20 those sections of the final staff assessment.
- 21 Were any of those topics covered in the
- 22 errata that you submitted, Mr. Ratliff?
- MR. RATLIFF: I believe not.
- 24 HEARING OFFICER BOUILLON: All right,
- 25 then can we turn to the topic of socioeconomics?

1	MR	RATLIFF:	Staff	witness	in

- 2 socioeconomics is Mr. Jim Adams.
- 3 HEARING OFFICER BOUILLON: Do you want
- 4 to go before the applicant?
- 5 MR. RATLIFF: Oh, I'm sorry. I didn't
- 6 know that -- I'd forgotten that they were putting
- 7 on a witness, as well.
- 8 HEARING OFFICER BOUILLON: Ms. Cottle.
- 9 From the applicant's perspective who is the --
- 10 MR. ZISCHKE: The witness on
- 11 socioeconomics is Danielle Tinman.
- 12 HEARING OFFICER BOUILLON: All right.
- Whereupon,
- 14 DANIELLE TIMMAN
- 15 was called as a witness herein, and after first
- 16 having been duly sworn, was examined and testified
- 17 as follows:
- 18 DIRECT EXAMINATION
- 19 BY MR. ZISCHKE:
- 20 Q Good morning. Could you please state
- 21 your name for the record?
- 22 A Danielle Tinman.
- 23 Q And your qualifications were submitted
- 24 with Three Mountain Power's prehearing conference
- 25 statement, is that correct?

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1 A Yes.
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- 2 Q And could you describe your current
- 3 position?
- 4 A I'm the Policy and Communications
- 5 Manager for Ogden Energy Group.
- 6 Q Did you prepare the direct testimony on
- 7 socioeconomics that was submitted by Three
- 8 Mountain Power and entitled, socioeconomics -
- 9 Danielle Tinman?
- 10 A I did.
- 11 Q Is that testimony true and correct to
- the best of your knowledge?
- 13 A Yes.
- 14 Q And if asked to testify today would your
- testimony be substantially the same?
- 16 A Yes.
- 17 Q One of the proposed conditions of
- 18 certification in the final staff assessment calls
- 19 for an agreement with the Burney Fire District on
- 20 funding for equipment and training. That proposed
- 21 condition is labeled SOCIO-2.
- 22 Are you familiar with that proposed
- 23 condition?
- 24 A Yes, I am.
- ${\tt Q}$ Could you describe for the Committee and

1	the ₁	parti	es	the	Cl	ırrent	sta	atus	of	negoti	ati	ons
2	with	the	dis	stric	ct	pursua	ant	to	that	condi	tio	n?

- A Three Mountain Power has entered into
 negotiations with the Burney Fire District about
 the timing, the amount of funds that will be
 provided by Three Mountain Power to fully mitigate
 the emergency response issues that might result
 from the building, construction and operation of
 Three Mountain Power.
- And at this point the contract is before
 the Burney Fire District and they are reviewing
 the draft, and we hope to have a final resolution
 on this soon.
- 14 Q So essentially the agreement has been 15 negotiated and is now awaiting consideration by 16 the Board of the Fire District, is that right?
- 17 A Yes, pending review by the attorneys 18 from the Burney Fire District.
- 19 Q Thank you.
- MR. ZISCHKE: No further questions.
- 21 HEARING OFFICER BOUILLON: Mr. Ratliff.
- MR. RATLIFF: No.
- 23 HEARING OFFICER BOUILLON: Mr. Wolfe?
- MR. WOLFE: No.
- 25 HEARING OFFICER BOUILLON: Ms. Crockett.

1	CROSS-EXAMINATION
2	BY MS. CROCKETT:
3	Q Good morning. Your proposal to Burney
4	Fire District is subjective to if the plant goes
5	in, is that correct?
6	A Um-hum.
7	Q And you say to mitigate specific
8	problems with emergency response for the plant.
9	Would you clarify for the Commissioners what that
10	means?
11	A The Burney Fire District has said that
12	they would like specific funding and equipment to
13	mitigate any possible emergency response issues
14	that might come up as a result of construction or
15	operation of the proposed power plant.
16	Q Their main concern is high rise injury,
17	is that correct, Ms. Tinman?
18	A They've expressed several concerns to
19	the California Energy Commission Staff, including
20	response to hazardous materials, training and high
21	rise response, emergency response.
22	Q So for clarification to the Committee,
23	since the Burney Fire Department does respond at
24	the paramedic level currently, the specific and
25	for clarification to the Committee, for an

1 emergency response, paramedic level is the highest

- 2 field response, so that is already in place
- 3 whether or whether not the plant does exist, is
- 4 that correct, Ms. Tinman?
- 5 A I can't speak to that.
- 6 Q Okay. So, basically they talked about
- 7 the hazmat that might be part of the response to
- 8 the plant or high rise, and the specific piece of
- 9 equipment that the Burney Fire District has
- 10 requested is actually a ladder truck, is that --
- 11 ladder and platform truck?
- 12 A The fire chief has requested compression
- foam backpacks, as well as possible platform-
- 14 ladder truck. That has not yet been ratified by
- the board of directors, however.
- 16 Q But in the \$150,000 to \$165,000 price
- tag we are discussing, it would be reasonable to
- 18 assume that that hook-and-ladder truck or platform
- 19 truck represents a great majority of that money?
- 20 A Yes.
- 21 Q And so consequently that would be the
- 22 equipment additions that would be added, as well
- as the foam packs and the training in hazmat?
- 24 A The proposal is to provide the Burney
- 25 Fire District with an amount of funds that they

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1 could use at their discretion to address the needs
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- 2 that they believe are relevant as a result of
- 3 Three Mountain Power construction and operation.
- 4 Q Has anything other than the platform
- 5 truck and the foam packs been discussed?
- A Not to my knowledge.
- 7 Q Thank you.
- 8 A Actually, if I could add to that,
- 9 training has been discussed.
- 10 Q The training, that is correct.
- 11 A Training associated with those, yes.
- 12 Q With the foam packs?
- 13 A Yes.
- MS. CROCKETT: Thank you.
- 15 HEARING OFFICER BOUILLON: Mr. Evans.
- MR. EVANS: No.
- 17 HEARING OFFICER BOUILLON: Any redirect?
- 18 MR. ZISCHKE: No redirect. I would ask
- 19 to move into evidence the testimony of Danielle
- Tinman. And, also we had confirmed through emails
- 21 among the parties and staff that Ms. Tinman was
- the only witness we were going to call on
- 23 socioeconomics.
- 24 But I would also move into evidence the
- 25 testimony of Rika Nitka and Michael Costanza on

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1 socioeconomics. Their testimony was submitted
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- with declarations, but we'd confirmed prior to
- 3 this that we were going to present Danielle Tinman
- 4 on this topic and not the others.
- 5 HEARING OFFICER BOUILLON: In addition,
- 6 do I understand you to say when you offer their
- 7 testimony that you incorporate into their
- 8 testimony the applicable sections of the AFC?
- 9 MR. ZISCHKE: Yes.
- 10 HEARING OFFICER BOUILLON: And their --
- 11 well, it appears their qualifications are in the
- 12 testimony.
- 13 MR. ZISCHKE: And the qualifications are
- 14 attached to the testimony.
- 15 HEARING OFFICER BOUILLON: All right.
- 16 Any objection?
- MR. RATLIFF: No.
- 18 HEARING OFFICER BOUILLON: They'll be
- 19 admitted. You're excused, thank you very much.
- 20 Mr. Ratliff, do you have a staff
- 21 witness?
- MR. RATLIFF: Yes. Mr. Jim Adams.
- Whereupon,
- 24 JAMES ADAMS
- 25 was called as a witness herein, and after first

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1 having been duly sworn, was examined and testified

- 2 as follows:
- 3 DIRECT EXAMINATION
- 4 BY MR. RATLIFF:
- 5 Q Mr. Adams, did you prepare the portion
- of the final staff assessment titled
- 7 socioeconomics?
- 8 A Yes, I did.
- 9 Q And are your qualifications also made
- 10 part of the FSA?
- 11 A Yes, they are.
- 12 Q Is your testimony true and correct to
- the best of your knowledge and belief?
- 14 A Yes, it is.
- 15 Q Do you have any changes to make in it at
- 16 this time?
- 17 A No.
- 18 Q Would you summarize your testimony
- 19 briefly?
- 20 A Sure. Basically I reviewed the
- 21 application for certification, the socioeconomics
- 22 section, and I also did my own analysis. My
- 23 conclusion is that the project would have a
- 24 positive socioeconomic impact, both in the Burney
- area and the Greater Redding/Shasta County area.

1 When you consider the payroll, the size 2 of the project, the materials purchased, it would 3 be a significant impact, I think, at least for Burney because it is in a period of relative 5 economic decline due to the decline of the timber 6 industry. And any project or jobs generated would have a positive economic effect. 8 In terms of impacts it would not have any adverse impact on the schools or some of the 9 10 other services. It's my understanding that the 11 water district and the applicant have made a tentative agreement in terms of the water. 12 13 And as Ms. Tinman just described, there 14 is an apparent agreement between the fire 15 district, or at least being considered by the fire 16 district in terms of the need for additional 17 equipment and training, which is one of the conditions of certification that I had noted in my 18 19 assessment.

20 The other one dealt with the need, to
21 the extent possible, to use the local labor and
22 materials whenever possible.

23

24

25

Basically I think, you know, the conclusion speaks for itself. I don't think there's any outstanding issues or disagreements

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1 between the applicant's analysis and my own. And
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- I believe it will have a positive socioeconomic
- 3 impact.
- 4 Q Mr. Adams, in your work in
- 5 socioeconomics, have you become acquainted with
- 6 the EPA federal guidelines for environmental
- 7 justice?
- 8 A Yes, I'm familiar with them.
- 9 Q And those are the guidelines that
- 10 implement the executive order concerning
- 11 environmental justice, is that correct?
- 12 A Yes.
- 13 Q You have visited the Burney area?
- 14 A Yes, I have, several times.
- 15 Q And in your visits to the Burney area
- 16 did you make inquiry as to whether or not this
- 17 might be what is sometimes called an environmental
- 18 justice community?
- 19 A Yes, I did. In addition to reviewing
- 20 basic U.S. Census Bureau data and other data
- 21 provided by the City of Redding and whatnot, I was
- able to determine that there's a very small
- 23 population of what would be called minority
- 24 population in the area.
- 25 In addition, I contacted the members of

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the Pit River Tribe, particularly their cultural
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- 2 information person. And tried to determine what
- 3 the size of the population was, and where they
- 4 were physically located. If they were
- 5 concentrated in any small area
- 6 In addition, I contacted a couple of
- 7 members of the Chamber of Commerce to try to
- 8 determine what they knew about possible
- 9 populations of low-income people. And whether or
- 10 not they are distributed throughout the
- 11 population.
- 12 And basically, based on that, plus my
- own driving around the area and just taking a look
- 14 around as much as I could to verify what I was
- 15 told, I believe that's true. And I do believe
- 16 there's no really -- well, I guess it would be
- 17 congregation of a minority or low-income
- 18 population in the area.
- 19 And therefore I noted that in my
- 20 environmental justice analysis.
- 21 Q Thank you.
- MR. RATLIFF: I have no other questions.
- 23 HEARING OFFICER BOUILLON: Mr. Zischke?
- MR. ZISCHKE: No questions, thank you.
- 25 HEARING OFFICER BOUILLON: Mr. Wolfe?

1	Ma	Crockett?
1	MS.	Crockett?

- 2 CROSS-EXAMINATION
- 3 BY MS. CROCKETT:
- 4 Q Just one, maybe two. In your comment
- 5 about the Burney area being economically
- 6 depressed, there will be no argument there.
- 7 Now, I have an attendance record from
- 8 the Burney Falls Park for the last 40 years, which
- 9 I will enter into evidence if it's accepted, that
- indicates an average annual attendance of 200,000
- 11 people a year, annually.
- 12 Would it be agreed by you in your visits
- 13 to Burney that most people talk about spring
- 14 through fall as the time when that town survives?
- 15 A I can't recall any particular
- 16 conversation I've had where I've heard that, but
- it's my assumption, based on what I do know about
- 18 the Burney area, that it does rely on tourists and
- 19 vacation time. And I would anticipate that people
- 20 coming at that time of year as opposed to winter
- is a logical thing to assume.
- 22 Q And in fact I'll agree with you because
- 23 that is what happens a lot of times in Burney is
- that the winter we barely get through, and anyhow,
- 25 with the addition, after the plant is built, of 20

1 to 25 new jobs, do you think the impact on the

- 2 economy will be as substantial as the impact of
- 3 the tourism that comes into this area?
- 4 A Well, actually I haven't considered that
- 5 in quite that context. But I would say if you're
- 6 looking at 20 to 25 jobs and the multiplier effect
- 7 which you need to deal with in terms how the money
- 8 moves through the local economy, compare that
- 9 effect with say 200,000 people who come to the
- 10 area and the money that basically rolls through
- 11 the economy on their basis, I'd have to say that
- 12 at first blush the impact of the tourism would be
- greater than the impact of the jobs generated by
- 14 the plant.
- 15 Q How do you think visually this plant is
- going to impact tourism, and we won't get into it
- 17 now, but at a later point we'll be discussing the
- 18 water issues in the plant and the park, but have
- 19 you seen a plant of this size personally?
- 20 A Not of this size. I've seen plants that
- 21 are maybe 100, 200 megawatts, but not 500
- 22 megawatts. And you know, I didn't really do a
- visual analysis of the plant and how that would
- 24 affect tourism, so I couldn't really speak to that
- issue.

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1 Q Would you describe the 200 megawatt
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- 2 plant that you saw?
- 3 A Well, I guess you would say it's a
- 4 typical plant in terms of there's stacks involved,
- 5 there's other structures that are, you know, 100
- 6 feet high or so. There's related facilities, and
- 7 then there's what we call linears, which is
- 8 transmission lines and what-not. I mean that
- 9 would be my general description.
- 10 MR. RATLIFF: I don't want to object to
- any of these questions, but I would point out that
- we have a visual resources witness who has
- presented testimony on visual resources and will
- 14 be testifying on these issues today, and will be
- subject to cross-examination.
- Mr. Adams is not that witness.
- 17 HEARING OFFICER BOUILLON: I think
- that's appropriate, Ms. Crockett.
- MS. CROCKETT: That's a good point. One
- 20 more quick question.
- 21 BY MS. CROCKETT:
- 22 Q In your opinion on the socioeconomics,
- do you think the plant will actually encourage or
- 24 help the tourism?
- 25 A I'd have to say I hadn't really thought

- 1 about that.
- 2 Q Thank you.
- 3 HEARING OFFICER BOUILLON: Commissioner
- 4 Laurie.
- 5 EXAMINATION
- 6 BY COMMISSIONER LAURIE:
- Q Mr. Adams, could you turn to SOCIO-1,
- 8 please -- correct that, SOCIO-2.
- 9 A Yes, I have.
- 10 Q SOCIO-2 calls for an agreement with the
- fire district, doesn't it?
- 12 A Yes, sir, it does.
- 13 Q Is the intent of that mitigation measure
- 14 to require an agreement as mitigation or the terms
- and conditions as set forth in that agreement as
- the mitigation measure?
- 17 A I think the purpose of this condition
- 18 was to insure that whatever equipment or training
- 19 that the fire chief and the district thought was
- 20 necessary for the construction and operation of
- 21 that plant was provided for, and that it was up to
- 22 the district and the applicant to work out the
- 23 specific terms.
- 24 But as long as equipment and training is
- 25 provided for, that's really the thrust of the cert

4	9 1 . 1
1	condition.

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25

2	COMMISSIONER LAURIE: Thank you. Mr.
3	Hearing Officer, I would just note to staff and
4	otherwise that I always have a great discomfiture
5	about requiring third-party agreements.
6	What we're looking for is the mitigation
7	through agreement, through written agreement or
8	otherwise. Thus, I will indicate a discomfiture
9	with requiring an agreement as opposed to evidence
10	of the mitigation through agreement or otherwise.
11	HEARING OFFICER BOUILLON: If I might
12	inquire of the applicant in that regard, not as a
13	matter of evidence, but just for our information,
14	how close are you to reaching an agreement?
15	MR. ZISCHKE: We've submitted a draft of
16	the agreement to the Burney Fire District, and
17	they have submitted it to their attorney. We
18	expect it to be taken up at their next board
19	meeting depending upon the availability of board
20	members to attend that meeting.
21	HEARING OFFICER BOUILLON: And you'll
22	submit that to the Committee if it is approved?

when it's approved.

Committee when it's approved. We'll docket it

MR. ZISCHKE: We will submit that to the

1	HEARING OFFICER BOUILLON:	And	do	you
2	anticipate that it will be approved?			

- anticipate that it will be approved?
- MR. ZISCHKE: We anticipate it, having 3
- met with a subcommittee of the fire board and the
- 5 fire chief together to discuss what our plans were
- and what their needs were.
- MR. RATLIFF: I would just comment that
- 8 I think your point is a very good one. The staff
- also is uncomfortable with requirements of third-9
- 10 party agreements for, I think, the same reason.
- 11 I think this was probably an expediency
- because we usually try to let this get negotiated 12
- 13 out between the applicant and the local agency
- 14 concerning what exact needs the agency has and how
- 15 they're going to be met.
- Usually that has been successful and 16
- 17 hasn't required further staff or agency
- 18 intervention at all. But perhaps we should re-
- 19 examine how we're writing the condition to try to
- make it a little better. 20
- 21 COMMISSIONER LAURIE: And, Mr. Ratliff,
- 22 it's certain these conditions, as worded, as
- you've proposed, are not unique. All entities do 23
- 24 it. But I always have a discomfiture.
- 25 What we're looking for again is evidence

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of mitigation. And not necessarily the agreement.
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- 2 HEARING OFFICER BOUILLON: Do you have
- 3 any redirect, Mr. Ratliff?
- 4 MR. RATLIFF: No.
- 5 HEARING OFFICER BOUILLON: Did you say
- 6 no?
- 7 MR. RATLIFF: No.
- 8 HEARING OFFICER BOUILLON: I assume
- 9 there's no objection to this testimony?
- 10 MR. ZISCHKE: Correct, no objections.
- 11 HEARING OFFICER BOUILLON: It will be
- 12 admitted. You're excused, thank you.
- 13 Do we have any other witnesses on the
- topic of socioeconomics?
- That matter will be closed.
- 16 That leaves us -- before we proceed,
- during the stipulations I did not hear land use
- 18 mentioned.
- 19 MR. ZISCHKE: I believe that there's
- 20 cross-examination desired by the Burney Resources
- 21 Group of staff's land use witness. We had
- 22 confirmed, and I was going to say this at the
- 23 time, by email that there was not going to be an
- 24 examination of our witness on land use. And our
- 25 witness is not here with the consent of all the

1 partie	s and	staff.
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- 2 HEARING OFFICER BOUILLON: Does that
- 3 reflect your understanding?
- 4 MS. CROCKETT: That reflects our
- 5 understanding. And I just have a few questions of
- 6 staff on land use.
- 7 HEARING OFFICER BOUILLON: Is Mr. Walker
- 8 available?
- 9 MR. RATLIFF: Yes, he is.
- 10 HEARING OFFICER BOUILLON: Let's go to
- 11 land use, then.
- 12 MR. RATLIFF: The staff witness in land
- use is Mr. Gary Walker.
- Whereupon,
- 15 GARY WALKER
- 16 was called as a witness herein, and after first
- 17 having been duly sworn, was examined and testified
- 18 as follows:
- 19 MR. WALKER: I apologize for my informal
- 20 attire. I got my schedule mixed up on the hearing
- 21 reschedule date.
- 22 DIRECT EXAMINATION
- BY MR. RATLIFF:
- Q Mr. Walker, did you prepare the portion
- of the final staff assessment titled visual

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1 resources?
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- 2 A Land use.
- 3 Q I'm sorry, wrong topic. Land use, thank
- 4 you.
- 5 (Laughter.)
- 6 MR. RATLIFF: I should note that Mr.
- 7 Walker has been my visual resources witness on
- 8 many occasions.
- 9 BY MR. RATLIFF:
- 10 Q Is that testimony true and correct to
- the best of your knowledge and belief?
- 12 A Yes.
- 13 Q Do you have any changes to make in it at
- 14 this time?
- 15 A No.
- Q Could you summarize it briefly?
- 17 A Yes. Staff's land use analysis for the
- 18 Three Mountain Power Project focuses on two main
- issues, the project's consistency with applicable
- 20 land use plans, ordinances and policies, and the
- 21 project's compatibility with existing and planned
- land uses.
- 23 The information used in the analysis
- 24 included the application for certification, the
- 25 applicant's responses to staff's data requests,

1 land use documents from Sl	nasta County,
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- 2 conversations and correspondence with
- 3 representatives of agencies and members of the
- 4 public, discussions with other members of the
- 5 Energy Commission Staff, site visits and aerial
- 6 photographs of the project vicinity.
- 7 The Shasta County general plan
- 8 designates the proposed power plant site for
- 9 industrial use. The Shasta County zoning map
- shows that the site is zoned for general
- industrial combined with the design review
- 12 district.
- 13 The zoning plan includes power
- 14 generating plants as a use permitted in the
- 15 general industrial district if a use permit is
- issued.
- 17 In addition, private energy production
- is considered a public utility in the Shasta
- 19 County zoning plan. Public utilities are
- 20 permitted if a use permit is issued provided the
- 21 use is found to be compatible with and will not
- 22 adversely impact surrounding land uses.
- 23 Staff has found that the project, with
- 24 staff's proposed mitigation measures, will be
- 25 compatible with and would not adversely impact

1 surrounding land uses. Therefore, the proj	ect
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- 2 would meet the requirements for a use permit.
- 3 The zoning plan specifies site
- 4 development standards for the general industrial
- 5 district. One standard is the maximum structural
- 6 height is 45 feet. Five project components would
- 7 exceed this limit. The two, 140-foot-tall heat
- 8 recovery steam generators stacks, the 118-foot-
- 9 tall electric transmission towers, the 47-foot
- 10 tall office and control building, the 57-foot-tall
- 11 cooling tower, and the 104-foot-tall turbine
- 12 building.
- 13 The zoning plan allows any structure in
- 14 any district to be erected to a greater height
- than the limit provided that a use permit is
- issued.
- 17 The applicant has discussed the
- 18 exemption to the height restriction in the zoning
- 19 ordinance with the Shasta County Department of
- 20 Resources Management, Planning Division.
- 21 The planning Division has indicated that
- 22 their procedure would normally be to issue an
- 23 exemption for the height limitation as part of the
- use permit process for the site.
- 25 They have done this for other projects,

including the existing Burney Mountain Power Plant located on the same parcel of land.

The process involves conducting an

environmental review under the California

Environmental Quality Act. Because the Energy

Commission's certification process is an

equivalent process, the planning division has

indicated that they will agree to an exemption

from the zoning code with appropriate conditions

for visual mitigation to be included in the Energy

Commission's final approval of the project.

Shasta County's recommended conditions 9 and 10 are the conditions that the County would have required to mitigated the impacts of the tall power plant structures if a use permit had been issued. The Energy Commission Staff has incorporated these requirements in its proposed visual resources conditions of certification.

The site development standards for general industrial districts require that an applicant for either a building permit or a use permit submit a site plan that indicates how the standards listed in the section will be met.

The Energy Commission Staff's proposed
condition of certification LAND-1 insures that the

1	project would comply with the applicable site
2	development standards for the general industrial
3	district, and includes review by Shasta County.
4	The zoning plan states that uses

permitted outright, and those permitted with a zoning, administrative or use permit in the principal district are permitted in the design review district that a use permit has been issued.

Because the Energy Commission's decision will fulfill the role of the use permit, the project would be permitted in the design review district subject to the requirements of the district.

The Energy Commission Staff has proposed conditions of certification that contain the requirements Shasta County recommended be placed on the approval of the project which would have been presumably placed on a use permit.

The Energy Commission adoption of those conditions in a decision would achieve compliance with the use permit requirements of the zoning plan.

The County letter lists a number of conditions that it recommends be placed on approval of the project. Most of the County's

1 recommended conditions concern and are addressed

- 2 in staff testimony regarding other technical
- 3 areas.
- 4 However, County conditions 2 and 14
- 5 through 19 are most appropriately addressed in
- 6 conditions regarding land use. To have this
- 7 incorporated, these County-recommended conditions
- 8 in staff's proposed conditions of certification
- 9 LAND-2, LAND-3, LAND-4 and LAND-5.
- 10 In regard to compatibility with
- 11 surrounding land uses the power plant would be
- 12 located on a site that contains an existing
- 13 electric power plant. The proposed power plant
- 14 therefore represents further development of the
- 15 site committed to energy-relates uses rather than
- 16 the introduction of industry to a nonindustrial
- 17 area.
- 18 The site is designated industry on the
- 19 Shasta County General Plan Land Use map. A power
- 20 plant is consistent with this land use designation
- 21 and would not constitute a change in the current
- 22 development pattern of the area as established by
- the general plan.
- 24 No residences adjoin the power plant
- 25 site. The site is buffered from the nearest

1 residences by a distance approximately 1400 feet,

- 2 and by trees.
- 3 Staff has found that the project would
- 4 not cause significant adverse effects on land uses
- 5 in the vicinity except for the possible impacts on
- 6 Burney Falls.
- 7 David A. Nelson of the California
- 8 Department of Parks and Recreation has expressed
- 9 his concern regarding the power plant's potential
- 10 to degrade Burney Falls. Mr. Nelson stated that
- 11 the amount of water that the applicant estimated
- would be reduced at the Falls due to the power
- 13 plant would be significant.
- 14 Burney Falls is a primary attraction in
- Burney McArthur Falls Memorial State Park.
- 16 Degradation of the Falls could adversely affect
- the recreation and land use of the park.
- 18 Staff is awaiting further information on
- 19 the project's expected effects on water supply
- 20 before taking a position on this issue and plans
- 21 to provide its evaluation in future testimony.
- 22 Two residential developments have been
- 23 proposed in the vicinity of the proposed power
- 24 plant site. The closest proposed development is
- 25 across State Route 299, approximately 1000 feet

1 south of the proposed power plant site. The other

- 2 proposed residential development is approximately
- 3 2000 feet northwest of the proposed power plant
- 4 site.
- 5 Both of these developments are currently
- 6 on hold. No action has been taken on either plan
- 7 within the past two years, and the owners of the
- 8 developments have informed the applicant that no
- 9 action in the near future will be taken to proceed
- 10 with the developments.
- 11 Even if these developments were to be
- 12 completed, distance and existing trees would
- buffer them from the power plant site.
- 14 In summary, staff concludes that except
- for the potential impacts on McArthur Burney Falls
- 16 Memorial State Park the proposed project would be
- 17 compatible with existing and planned land uses,
- 18 because one, the project is compatible with heavy
- industrial character of the site; two, the project
- 20 would not physically divide an established
- 21 community; three, the project would not
- 22 substantially preclude or restrict existing land
- uses; four, the project would not preclude or
- 24 restrict any planned uses; and, five, the project,
- with mitigation, would not cause any significant

dust, noise, traffic or visual impacts based on

- 2 discussions with Energy Commission air quality,
- 3 noise, traffic and transportation and visual
- 4 resources staff.
- 5 The project also would not contribute
- 6 substantially to any cumulative land use impacts.
- 7 Staff also concludes that the project
- 8 would comply with all applicable land use laws,
- 9 ordinances, regulations and standards with the
- 10 exception of the height limit of 45 feet.
- 11 However, because the Shasta County planning
- 12 division has stated that the County would grant an
- 13 exemption to this requirement with the inclusion
- of visual mitigation measures, the project would
- 15 be allowed.
- 16 That concludes my summary.
- 17 Q Thank you.
- 18 MR. RATLIFF: The witness is available
- 19 for cross-examination.
- 20 HEARING OFFICER BOUILLON: Thank you.
- 21 Mr. Zischke.
- MR. ZISCHKE: No questions, thank you.
- 23 HEARING OFFICER BOUILLON: Mr. Wolfe?
- MR. WOLFE: No.
- 25 HEARING OFFICER BOUILLON: Ms. Crockett.

1	MS	CROCKETT:	Thank	VOII

- 2 CROSS-EXAMINATION
- 3 BY MS. CROCKETT:
- 4 Q Good morning, Mr. Walker.
- 5 A Good morning.
- 6 Q I notice in all of the land use there is
- 7 a map that delineates a one-mile radius from the
- 8 plant. Could you explain why one mile is chosen?
- 9 A One mile is typically considered the
- 10 distance where impacts to neighboring land uses
- 11 would occur.
- 12 Q How extreme are those impacts?
- 13 A As I stated in my summary, staff did not
- 14 expect any significant impacts.
- 15 Q Staff is aware that applicant recently
- 16 refiled their wastewater summary to the state
- 17 regional water control board?
- 18 A Yes, I'm aware of that.
- 19 Q Are you also aware that in that proposal
- 20 they asked to be allowed to increase the TDS
- levels from 1000 mg/liter to 5000 mg/liter?
- 22 COMMISSIONER LAURIE: Excuse me. Mr.
- 23 Bouillon, I'm not satisfied this is a land use
- 24 issue, and I'm not satisfied that this witness has
- 25 the expertise to respond.

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1 MR. RATLIFF: Thank you, Commissioner,
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- 2 the --
- 3 HEARING OFFICER BOUILLON: I believe
- 4 that's correct. We will deal with that matter
- 5 when --
- 6 MR. RATLIFF: I think this is a part two
- 7 hearing topic, actually. --
- 8 HEARING OFFICER BOUILLON: Excuse me?
- 9 MR. RATLIFF: It is a part two hearing
- 10 topic. It's questionable to what extent the land
- 11 use issue crosses over into water use, but staff
- 12 will fully address these issues in its part two
- 13 testimony in terms of water quality and water use
- impacts related to the project.
- 15 BY MS. CROCKETT:
- 16 Q Are you aware, Mr. Walker, that there is
- 17 prime agricultural land within the one-mile radius
- of the plant?
- 19 A Yes.
- 20 Q Does the state normally site power
- 21 plants within one mile of prime agricultural land?
- 22 A It has done so in the past.
- Q Are there concerns about that?
- 24 A There are possible concerns. In fact, a
- 25 concern was raised by Burney Resources Group in

1 comments on the preliminary staff assessment a	bout
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- 2 impacts to groundwater.
- 3 Q Did the Burney Resources Group also ask
- about the actual impact to the land, itself,
- 5 notwithstanding the water?
- 6 A In terms of water being used for
- 7 irrigation?
- 8 Q No, salt deposition, chemicals, crops.
- 9 A Yes, but wasn't that through irrigation
- 10 water use that would be -- that could be
- 11 contaminated by the project?
- 12 Q I'm not sure if I'm going into an area
- that's a phase two. I will --
- MR. BARRIE: I believe that the chemical
- 15 questions all relate either to air or water, and
- 16 that those are part two topics.
- 17 MS. CROCKETT: Okay. Then I will wait
- 18 until phase two for those questions. Thank you.
- 19 HEARING OFFICER BOUILLON: Any redirect?
- MR. RATLIFF: No.
- 21 EXAMINATION
- 22 BY COMMISSIONER LAURIE:
- Q Mr. Walker, --
- 24 A Yes, sir.
- Q -- is it your testimony that this

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project complies with LORS?
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- 2 A Except for the possible problem with 3 Burney Falls Park in the sense that if one
- 4 construed the incompatibility with surrounding
- 5 land uses to include that not immediately
- 6 surrounding land use.
- Q Okay, so the general plan policy talked
 about compatibility and incompatibility, and
 except to the extent that the park may be
- 10 considered an incompatible use then it would
- otherwise be consistent?
- 12 A Yes.
- 13 Q It is noted that this project requires a 14 parcel map for the purpose of forming the parcel
- upon which the project is going to sit, is that
- 16 correct?
- 17 A Yes.
- 18 Q So would this project be consistent
- 19 without that parcel map? Will the project meet
- 20 LORS without that parcel map?
- 21 A I would expect that it would not, but we
- 22 have proposed a condition that that be required.
- 23 That the applicant acquire that parcel map.
- Q So is it your opinion that the
- 25 successful completion of that parcel map is a

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1 condition to compliance with LORS?
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- 2 A Yes.
- 3 Q And at what point in time does that
- 4 parcel map have to be completed? Look at page
- 5 108.
- 6 A The way the condition is worded, upon
- 7 recommendation by the County the LAND-2 states,
- 8 that prior to final approval of any proposed land
- 9 division to create a separate parcel for the
- 10 Burney Mountain Power Plant to allow it by Shasta
- 11 County use permit number 3-83, the project owner
- shall insure that the plot plan and conditions of
- 13 UP3-83 are changed, as appropriate, to reflect the
- 14 proposed plant and/or property segregation.
- 15 And the verification requires that the
- 16 project owner insure that the revised plot plan
- and conditions of UP3-83 are filed with the Shasta
- 18 County and shall provide evidence of the filing
- 19 with the compliance project manager.
- 20 And so it's prior to final approval of
- 21 the land division they must provide the plot plan.
- 22 Q Okay, but --
- 23 A There's no connection with the decision,
- is that what you're asking, with our decision?
- 25 Q Yes.

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A Right. It seems like that would be
appropriate, that we include such a connection.

But to have it done before the decision I'm not
sure legally whether that's required because we
have many conditions that are satisfied after
certification.
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- Q Okay, well, my concern is that I'm not sure this issue has been given thought.
- 9 MR. ZISCHKE: For the applicant I can
 10 clarify that we're not required to divide the
 11 land, we're required to clarify the use permit and
 12 the relationship between the existing use permit
 13 for Burney Mountain Power, and the new facility.
 14 Even though not required to divide the land, we
 15 are processing that at this time.
- So, I'm not sure if we have the exact --
- MR. McFADDEN: The status on the

 application is that it's been submitted to the

 Shasta County Resources Management Division

 Planning Department, and that we understand that

 it will be brought to the planning commission for

 hearing on April 6th.
- 23 COMMISSIONER LAURIE: Okay, so it is now
 24 my understanding that a parcel map is not legally
 25 necessary for this project to be constructed. Is

- 1 that your representation?
- 2 MR. ZISCHKE: Yes.
- 3 COMMISSIONER LAURIE: Okay, that's
- 4 helpful. Thank you.
- 5 BY COMMISSIONER LAURIE:
- 7 regards to LAND-1. Can you clarify for me again
- 8 when the site plan has to be approved?
- 9 A The verification portion of LAND-1
- 10 states that at least 60 days prior to the start of
- 11 construction of the proposed project the project
- owner shall submit the site plan to the compliance
- 13 project manager for review and approval.
- The 60-day lead time is to enable staff
- 15 to review the application and determine if any
- 16 changes need to be made before it can be approved
- 17 by the compliance project manager.
- So, the compliance would be required,
- 19 but prior to the start of construction.
- 20 Q And you are satisfied that you can make
- 21 a recommendation of consistency with LORS by
- 22 mitigating -- strike that -- by conditioning
- 23 project construction on approval of the site plan,
- 24 as opposed to having that effort completed prior
- 25 to the decision?

1	A	Yes.

- 2 COMMISSIONER LAURIE: I have no more
- 3 questions.
- 4 BY PRESIDING MEMBER KEESE:
- 5 Q Do I understand the seven conditions, I
- 6 believe it was seven conditions the County had,
- 7 are included in LAND-1? Is that where they're
- 8 picked up?
- 9 A No, they're included in several
- 10 different conditions. Conditions 2 and 14 through
- 11 19 are incorporated in conditions LAND-2, LAND-3,
- 12 LAND-4 and LAND-5.
- One of them had to do with the land
- 14 division, number 2. Number 3 had to do with the
- screening as required in the zoning plan. Number
- 4 had to do with the parking area. And number 5
- 17 had to do with the providing prospective
- 18 purchasers with a copy of the Shasta ordinance 94-
- 19 2, with regard to agricultural timber use effects.
- 20 HEARING OFFICER BOUILLON: Are there any
- other questions of this witness? Ms. Crockett.
- MS. CROCKETT: In reviewing my notes and
- 23 trying to separate air and water out, I did miss
- one question, if I may be permitted to ask it.
- 25 HEARING OFFICER BOUILLON: I don't know

if we'll permit the witness to answer it, but you

- 2 can ask it.
- 3 RECROSS-EXAMINATION
- 4 BY MS. CROCKETT:
- 5 Q In your testimony, Mr. Walker, you state
- 6 that there are sensitive land uses, and that there
- 7 are none within one mile or quarter-mile,
- 8 depending on transmission lines, of the plant. Is
- 9 agricultural land use considered a sensitive use?
- 10 A Could you point me to the portion of the
- 11 testimony, please.
- 12 Q Sensitive land uses within one mile of
- the site are residence --
- 14 HEARING OFFICER BOUILLON: Ms. Crockett,
- 15 could you tell us what page you're looking at?
- MS. CROCKETT: Oh, excuse me, page 85.
- 17 Third paragraph.
- 18 BY MS. CROCKETT:
- 19 O Sensitive land uses within one mile of
- 20 the site are residence located in Johnson Park,
- 21 the closest of which are approximately one-half
- 22 mile away, and one single-family residence
- 23 approximately 1400 feet west of the site on Black
- 24 Ranch Road.
- 25 My question goes to the agricultural

1 land across the road and those crops. Are they

- 2 considered a sensitive land use?
- 3 A Not in the normal sense of sensitive.
- 4 Doesn't mean they couldn't have an impact. But
- 5 sensitive typically refers to impacts where humans
- 6 would be affected.
- 7 MS. CROCKETT: Thank you.
- 8 HEARING OFFICER BOUILLON: I believe
- 9 there are no further questions. Oh, I'm sorry,
- 10 before we do that, Mr. Ratliff.
- 11 Certainly.
- 12 MR. EVANS: We're talking about visual
- impacts in this, aren't we, also?
- 14 HEARING OFFICER BOUILLON: No. That's
- 15 coming next.
- 16 MR. EVANS: That's next. Then I'll wait
- 17 until next time.
- 18 HEARING OFFICER BOUILLON: For the
- 19 record Mr. Evans had asked whether or not he could
- ask a question based upon the visual impact of
- 21 this witness, and I explained to him that, in
- fact, that topic will be coming up next. He'll be
- given the opportunity to do so with the visual
- impact witnesses.
- So, given that, Mr. Ratliff, I

1 understand you have offered Mr. Walker's

- 2 testimony?
- 3 MR. RATLIFF: Yes.
- 4 HEARING OFFICER BOUILLON: Any
- 5 objections? It will be admitted.
- 6 You're excused, thank you, Mr. Walker.
- 7 MR. WALKER: Thank you.
- 8 HEARING OFFICER BOUILLON: Can I get
- 9 some estimates from the parties about how long
- 10 their respective witnesses might take, and how
- long the cross-examination will be of them on
- 12 visual resources?
- 13 Let's start with the applicant.
- MS. COTTLE: We have two witnesses for
- visual resources. We don't have any questions for
- the staff witness, and I understand there are no
- other visual resource witnesses. So, I estimate
- 18 that our direct should take five minutes apiece.
- 19 HEARING OFFICER BOUILLON: Mr. Ratliff.
- 20 MR. RATLIFF: I think the direct, plus
- 21 the summary of the testimony, will take a little
- 22 over five minutes.
- 23 HEARING OFFICER BOUILLON: Do you have
- any cross for anyone?
- MR. RATLIFF: No.

1	HEARING	OFFICER	BOUILLON:	Mr.	Wolfe,	dо
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- 2 you have any witness or cross?
- MR. WOLFE: No.
- 4 HEARING OFFICER BOUILLON: Ms. Crockett?
- 5 MS. CROCKETT: I have no witness, but
- 6 there will be cross on the state's witness, as
- 7 well as -- or questions of the state witness and
- 8 the witness for Three Mountain.
- 9 HEARING OFFICER BOUILLON: I'm sorry,
- 10 how much?
- 11 MS. CROCKETT: Timewise?
- 12 HEARING OFFICER BOUILLON: Yes. Just
- 13 approximately.
- MS. CROCKETT: Hopefully we could get it
- done in 15, 20 minutes.
- 16 HEARING OFFICER BOUILLON: Both of them,
- or for each?
- MS. CROCKETT: I would hope a total.
- 19 HEARING OFFICER BOUILLON: Mr. Evans, do
- 20 you have just a few questions?
- 21 MR. EVANS: I have one question.
- 22 HEARING OFFICER BOUILLON: All right.
- 23 MR. RATLIFF: Commissioners, I have
- overlooked the fact that we have two visual
- 25 resource witnesses, Joe Loyer is the staff witness

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who addresses the plume. So to the extent that
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- we're talking about the plume analysis we have
- another witness who probably has at least five
- 4 minutes of direct testimony, as well.
- 5 HEARING OFFICER BOUILLON: Five, you
- 6 said?
- 7 MR. RATLIFF: Yes.
- 8 HEARING OFFICER BOUILLON: Does that
- 9 extent your cross-examination, Ms. Crockett? Or
- 10 had you included that?
- 11 MS. CROCKETT: It was included.
- 12 HEARING OFFICER BOUILLON: Okay. We'd
- 13 like to attempt to finish this without a lunch
- 14 break if that doesn't meet any serious objections.
- 15 So could we take up the topic of visual resources
- 16 at this time. The applicant has witnesses.
- 17 MS. CROCKETT: Mr. Bouillon, may the
- 18 Burney Resource Group request about a five-minute
- 19 recess before we start this?
- 20 HEARING OFFICER BOUILLON: Certainly.
- MS. CROCKETT: Thank you.
- 22 HEARING OFFICER BOUILLON: Five minutes.
- 23 (Brief recess.)
- 24 HEARING OFFICER BOUILLON: Back on the
- 25 record. Does the applicant have some witnesses?

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- Whereupon,
- 3 MARSHA GAYLE
- 4 was called as a witness herein, and after first
- 5 having been duly sworn, was examined and testified
- 6 as follows:
- 7 DIRECT EXAMINATION
- 8 BY MS. COTTLE:
- 9 Q Would you please state your name for the
- 10 record?
- 11 A My name is Marsha Gayle.
- 12 Q And did you prepare the testimony on
- visual resources, other than the cooling tower
- 14 plume analysis, that was submitted in this
- proceeding by Three Mountain Power?
- 16 A Yes, I did.
- 17 Q Is that testimony true and correct to
- 18 the best of your knowledge?
- 19 A Yes, it is.
- 21 modifications to your testimony at this time?
- 22 A No.
- 23 Q Would you please briefly summarize that
- testimony?
- 25 A Yes. My written testimony provides an

1 overview of the visual impact assessment that we

- prepared for the project AFC. In addition, my
- 3 written testimony includes two graphic attachments
- 4 that would be new to the AFC graphic material.
- 5 Let me summarize the findings that we
- 6 made with respect to potential visual impacts
- 7 other than the plume.
- 8 Our analysis finds that overall the
- 9 project has been sited and designed in a manner
- 10 that takes advantage of visual screening provided
- 11 by the existing conifer tree buffer located along
- the site's perimeter.
- 13 In addition, a 12-foot high berm planted
- with trees will be installed as part of the
- project to provide additional screening on the
- 16 east and west property lines.
- 17 Because of this existing tree buffer
- 18 condition, along with the planted berm, it's
- 19 anticipated that foreground views of the project
- 20 generally will be screened from public view.
- 21 Although generally the project will not
- 22 be highly visible from publicly accessible and
- 23 sensitive viewing locations, some elements of the
- 24 project will, however, be partially visible from
- 25 two sensitive viewing locations, the state route

1 299 corridor and the Vedder Road residential area.

- 2 And I'd like to speak to those visual
- 3 impacts briefly, one at a time.
- First, state route 299, which is the
- 5 designated scenic corridor by Shasta County. As
- 6 viewed from state route 299 the project could
- 7 include minor visual effects on visual resources.
- 8 Although the project will generally not be
- 9 visible, motorists could perceive a passing
- 10 glimpse of the buildings or stacks through the
- 11 trees while traveling north or southbound adjacent
- 12 to the site.
- 13 Although potentially visible, it's
- 14 anticipated that the project will not
- 15 substantially alter the visual character of this
- scenic corridor. If seen at all, the project will
- 17 be largely screened by the berm and conifer trees,
- as well as the existing tree buffer.
- 19 And furthermore, the view will be brief
- in duration, lasting less than several seconds.
- 21 Although the impact will not be significant,
- 22 because of the scenic corridor designation several
- 23 mitigation measures have been proposed in the AFC
- and are included as conditions of approval.
- 25 After the recommended visual mitigation

1 measures are incorporated into the project, the

- project's impact on views from state route 299
- 3 will be less than significant.
- 4 Second area of visual impact is from the
- 5 Vedder Road residential area. Again, overall the
- 6 visual changes that will occur as a result of
- 7 construction and operation will be minor as viewed
- 8 from the Vedder Road residential area.
- 9 And this was analyzed as key observation
- 10 point three in both the AFC document, as well as
- 11 the final staff assessment.
- 12 I'll review why these visual effects are
- 13 considered less than significant as seen from
- 14 Vedder Road. First, the Vedder Road residential
- area is located more than a mile from the project
- 16 site. The number of affected viewers is
- 17 relatively small, approximately six residences.
- 18 I'd like to refer to the graphics
- 19 briefly if I could, that were attached to my
- 20 written testimony. Can I do that? Good. All
- 21 right.
- First, there's a map that is a USGS map
- 23 detailed, combined with an aerial photo. And the
- 24 point of these graphics shows the relationship of
- 25 the Vedder Road residential area to the site in

terms of viewing distance. But most importantly I

- 2 think the aerial photo detail indicates that the
- 3 majority of the Vedder Road residences, and I
- 4 believe there are approximately 20 in total, the
- 5 majority of these are located in the forested
- 6 area.
- 7 Typical views from the residences
- 8 located in the forested area are screened toward
- 9 the project site, and we have a photo that
- 10 represents one such screened view. That is shown
- on the second graphic attachment to my written
- 12 testimony as View-1. It's view from Vedder Road
- residential area, view-1, basically showing the
- 14 typical amount of screening that's available from
- 15 the forested area.
- And as we've indicated in the analysis
- 17 there are approximately six residences located at
- 18 the edge of the forest near the meadow. We have
- 19 prepared a visual simulation from a representative
- view along this location which we consider to be
- 21 the worst case for visual impact purposes.
- The visual simulation that we prepared
- was included in the AFC as figure 6.6-8A and 6.6-
- 24 8B. A similar, but more panoramic, simulation is
- included on the attachment, the second attachment,

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and it indicates the panoramic view from Vedder
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- 2 Road residential area.
- 3 The simulation illustrates the project's
- 4 appearance as seen from a portion of the road
- 5 situation near the edge of the meadow. As shown
- 6 in this image, the upper portion of the proposed
- 7 stack, and the upper portion of the turbine
- 8 building roof would be visible from this location.
- 9 It's shown -- yes, I believe you have it there --
- 10 it's shown there. And also, this is the
- 11 attachment, it's slightly larger, but this was the
- 12 attachment.
- 13 COMMISSIONER LAURIE: Don't worry about
- 14 facing me.
- MS. GAYLE: Okay, I hope you can find
- 16 these graphics. They're, I think, quite
- 17 illustrative.
- 18 In any event, this second sheet has two
- 19 photos, one of which is panoramic, that supported
- 20 the written testimony. And you will notice in
- 21 that panoramic view that the same image appears
- 22 that was included in the AFC with a wider
- 23 panoramic that extends to the right or toward the
- south.
- 25 Again, the visible project elements are

1 seen at a distance of over a mile. They would not

2 appear dominant in relationship to elements in the

3 existing surrounding landscape scene from this

4 location.

To some degree the structures could contrast with the surrounding landscape in terms of their form and color. Mitigation measures designed to reduce the potential visual contrast as seen from the Vedder Road area have been incorporated into the project design.

Review of the visual simulation indicates that the visual portion of the project would neither substantially block a scenic vista nor significantly alter the area's visual character, again as seen from this worst case location in the Vedder Road residential area.

To reduce the potential visual contrast

Three Mountain Power proposed a number of

mitigation measures and these show up in more

detail in the final staff assessment requirements.

In addition, we can anticipate that over time some of the existing trees located along the eastern edge of the pasture can be expected to grow taller thus providing additional screening of

25 the project.

1	We	conclude	e that	: after	the	recommend	dec	k
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- visual mitigation measures are incorporated into
- 3 the project visual impact as seen from the Vedder
- 4 Road residential area will be less than
- 5 significant. The final staff assessment concurs
- 6 with this conclusion.
- 7 Q Thank you, Ms. Gayle. One question I
- 8 neglected to ask you was were your qualifications
- 9 submitted with your testimony?
- 10 A My qualifications were submitted, yes.
- MS. COTTLE: And I meant to ask whether
- 12 anyone had any objections relating to those
- 13 witness qualifications?
- 14 Thank you. With that, the witness is
- 15 available for cross-examination.
- 16 HEARING OFFICER BOUILLON: Ms. Crockett,
- 17 you're the only one that indicated any questions
- other than Mr. Evans, and he's after you.
- MS. CROCKETT: Thank you.
- 20 CROSS-EXAMINATION
- 21 BY MS. CROCKETT:
- Q Ms. Gayle, correct?
- 23 A Yes.
- Q You have submitted a visual reference
- for the Commissioners under number 4, and your

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1 testimony, the view from the Vedder Road
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- 2 residential area, is that correct?
- 3 A Yes.
- 4 Q For everyone's information that is the
- 5 filed testimony of Mr. Robert Murray, who is one
- of the homeowners on the Meadow --
- 7 MS. COTTLE: Excuse me, may I ask is
- 8 this the testimony that was filed on the subject
- 9 of noise?
- MS. CROCKETT: Yes, it is, but I've
- 11 checked with staff and the pictures that are in
- there are legal to be used in this area according
- to Mr. Ratliff.
- MS. COTTLE: Well, I don't have a copy
- of that. Do you have another copy I could look
- 16 at, please?
- MS. CROCKETT: I will have Ms. Gayle --
- 18 I didn't bring an extra copy, and you are right, I
- 19 apologize because we don't really discuss noise.
- I will have Ms. Gayle pass that to the
- 21 Commissioners, and then we'll bring it around.
- BY MS. CROCKETT:
- 23 Q Ms. Gayle, how does that differ from
- 24 your representation --
- MS. COTTLE: Actually, maybe I could

- 1 look on with --
- 2 BY MS. CROCKETT:
- 3 Q How does that differ from your
- 4 representation of the homeowners' view of the
- 5 project site?
- 6 A Let me back up, if I could, just for a
- 7 moment. In the interests of time and getting a
- 8 timely lunch break, I skipped over, omitted from
- 9 this oral testimony any reference to the
- 10 procedures and methods that we used to prepare our
- 11 analysis.
- 12 And I also did not include any summary
- of the visual baseline or existing conditions.
- 14 And what I'd like to do is just before directly
- answering your question, if I could, step back and
- 16 explain a bit about the photo documentation that
- we conducted as part of our visual analysis.
- 19 A In it you'll -- in a moment, it does
- 20 answer your question. We prepared essentially a
- 21 visual assessment under California Environmental
- 22 Quality Act guidelines.
- One of the things that CEQA requires us
- 24 to do is analyze the impacts on visual resources
- as experienced by the public. So essentially the

1 photos that we included were generally shot from

- 2 publicly accessible vantage points, which is
- 3 consistent with CEQA.
- 4 I believe that the photo I'm looking at
- 5 was shot from a private residence.
- 6 0 That's correct.
- 7 A I don't know if it was shot from inside
- 8 a home, or the private yard area.
- 9 Q Is key observation point three the
- 10 Vedder Road residential area?
- 11 A Yes, it is.
- 12 Q Is the impact there, is it not to be on
- the residents of that area?
- 14 A Yes.
- 15 Q Would it not be fair to assume that you
- 16 need to have a fair representation of the visual
- 17 impact the homeowners would sustain, as opposed to
- 18 a view from a road?
- 19 A Generally speaking, under CEQA, we do
- 20 not portray or depict visual impacts as seen from
- 21 a private residence.
- 22 Q Even though you are making the statement
- that these will be the residents who will be
- impacted by this visual change?
- 25 A We select vantage points that are

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1 representative. And from that we do predict the
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- 2 level of visual impact.
- 3 Q Would you describe to the Commissioners
- 4 the difference between the two pictures? The one
- 5 you submitted and the one that is taken from Mr.
- 6 Murray, one of ten residents who live on the
- 7 meadow? Can you see the power plant site clearly?
- 8 That would be where the plume is.
- 9 A You've got two photos here. One is
- 10 titled view of the valley; one is view of bald
- 11 eagle from house.
- 12 They're somewhat different. I would
- 13 need to know a little bit more about the camera
- 14 equipment. I don't know were these shot, for
- example, with a 35 mm lens or a 125 mm lens. Are
- 16 we looking at what we normally see --
- 17 Q I don't want to burden the Committee
- 18 with time on perspective, otherwise I would get
- 19 into your simulations.
- 20 Is it accurate --
- 21 MS. COTTLE: Excuse me, I believe what
- 22 the witness is saying is that she does not know
- 23 how these pictures were taken. You're asking her
- 24 to evaluate them. So, I think it would be helpful
- if you could answer the questions that she needs.

1 MS. CROCKETT: I think the question is

- 2 that the witness is worried about whether it is a
- 3 close-up or a distance shot or a panorama shot.
- 4 And my question would go to the heart of the
- 5 matter.
- 6 BY MS. CROCKETT:
- 7 Q Does it fairly represent --
- 8 MS. COTTLE: I believe your question was
- 9 what are the differences between these two
- 10 pictures.
- 11 HEARING OFFICER BOUILLON: Ms. Cottle,
- let her finish the question. She seems to be
- rephrasing the question, so let her finish it,
- 14 please.
- 15 BY MS. CROCKETT:
- 16 Q Does it fairly represent the view across
- the meadow to the plant site?
- 18 A That's what this image shows, the view
- 19 across the meadow toward the plant.
- 21 view?
- 22 A Yes, I believe I do.
- Q Are they close to that picture?
- 24 A I'm sorry?
- 25 Q Do they shield the house from the view?

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1 A I think they do. I may be having
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- trouble understanding what I'm looking at. I
- 3 believe I see the perimeter tree buffer here
- 4 separating the viewer from the plant site. I'm
- 5 looking at view A --
- 6 Q I don't -- you have my only copy.
- 7 A I confess, I'm guessing here a little
- 8 bit, or I'm speculating as to what I'm looking at.
- 9 I apologize if I'm not responding. I'm looking at
- it and interpreting what I think I see.
- MS. CROCKETT: Let me take those for a
- moment and I'll take them to the podium, describe
- 13 what they represent, and then give them back to
- 14 the witness. Would that -- can we do it on the
- 15 overhead?
- 16 HEARING OFFICER BOUILLON: If it would
- show up that would be the best way to do it.
- MS. GAYLE: It might work there.
- 19 Unfortunately, there are images on both sides, so
- 20 when you project it it might --
- 21 (Pause.)
- 22 HEARING OFFICER BOUILLON: We've got a
- 23 roomful of engineers, maybe we can figure this
- 24 out.
- 25 (Laughter.)

1 HEARING OFFICER BOUILLON: Oh, that's

- 2 much better.
- 3 (Laughter.)
- 4 MS. CROCKETT: I'm very happy with that.
- 5 BY MS. CROCKETT:
- 6 Q Can you see that, Ms. Gayle?
- 7 MR. RATLIFF: Much better over here.
- 8 MS. CROCKETT: Could we have Ms. Gayle
- 9 come to the podium? Then she could see what we're
- 10 all directed at.
- 11 MS. GAYLE: Oh, that's better, I can see
- 12 it now.
- 13 BY MS. CROCKETT:
- 14 Q Can you see it? Okay. In the
- foreground is the lawn of the Murray residence. I
- do not know what the camera was, I'm going to
- 17 assume it's a 35 mm. I will also assume, from the
- proportions, that it's not a panoramic or a zoom
- lens, both of which I have run into in my
- 20 lifetime, and neither one is user friendly.
- 21 Now, this is the view from the Murray
- 22 household, one of the residents on the meadow. It
- 23 differs substantially from your submitted
- 24 residential view. Can you explain why?
- 25 A Again, I am unclear as to what lens was

1 used. The format, by the way, the format of the

- 2 photo refers to the film that was used. So
- 3 whether it's square or very linear, it's a
- 4 function of the film. We could be using 2-1/4
- 5 inch negative or panoramic or 33 mm. The shape of
- 6 the photo in no way refers to the lens that was
- 7 used, so that's not a clue for me.
- 8 The difference in this view, I would say
- 9 it would be helpful, as we have done with our
- 10 photo, to map the viewpoint location. It would be
- 11 helpful to see have we shifted east or west or
- 12 south in the Vedder Road residential area. It
- 13 would be helpful to know that, in other words
- where the photo was taken on the ground.
- 15 Q I'm probably not making myself clear.
- 16 You state that most of the homes along the meadow
- 17 are shielded of view of the meadow by trees,
- 18 correct?
- 19 A What we stated is that most of the homes
- 20 in the Vedder Road residential area are situated
- 21 within the forest, and their views toward the
- 22 project are screened by foreground vegetation,
- 23 particularly by mature trees in the foreground.
- 24 Q And then you submitted number 1, under
- exhibit 4, as your fair representation of most of

1 the homes on the meadow, and the view that they

- 2 have of the meadow, is that correct?
- 3 A View 1, the top photo, it's not a
- 4 panoramic, refers not to the homes that are
- situated on the meadow, but those other homes that
- 6 are situated within the forest.
- 7 Q So I am understanding there's a slight
- 8 change in your emphasis on the impact of the view
- 9 for the families on the meadow, the six homes that
- 10 you stated?
- 11 A Not at all. Not at all. The top photo
- 12 refers to the other homes. To amplify the point
- that there is a limited number of homes that have
- this worst case view similar to what is shown in
- 15 the bottom photo, similar to what is shown in KOP-
- 16 3 in the AFC.
- Nothing in the analysis has changed.
- 18 We've simply included an additional photograph to
- 19 illustrate those homes that are less affected
- 20 because they're situated in the forest. Does that
- 21 make sense?
- 22 Q That makes sense.
- 23 A Okay, I apologize for any confusion in
- introducing this new photo. That was the intent.
- 25 Q Let me clarify one point before we move

on. The limited number of homes has never been

- 2 correctly stated. I've just sat here and
- 3 rewritten every home on the meadow. And that
- 4 limited number is ten.
- 5 Does that change your evaluation of the
- 6 impact? Ten families whose impact on their homes?
- 7 A It wouldn't change our essential
- 8 conclusion. We did field observation and
- 9 estimated the number of homes on the ground in the
- 10 field. We reviewed aerial photographs, such as
- 11 the one we've included here in a little detail, to
- 12 locate those homes that were not in the forested
- 13 area, but had exposed or open views toward the
- 14 project. And we estimated that. And we've always
- indicated that the number was approximately six.
- We also noted in the field that there
- 17 appear to be some out-buildings, such as barns or
- 18 perhaps shed structures, and they also show up on
- 19 the aerial photograph.
- We've never insisted on six being a
- 21 precise number of residences.
- 22 Q Actually, in recounting, I made an
- error. There's 11.
- 24 Why did you only submit a photo of the
- view from the homes that would be in the forested

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1 area and not a view from our photo representing
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- those view of those 11 homes on the meadow?
- 3 A Well, again, the photo that we used as
- 4 KOP-3, which appears in the AFC, was, we feel,
- 5 somewhat representative of those meadow homes. It
- 6 was shot with a 50 mm lens, which is the normal --
- 7 Q Right.
- 8 A -- view cone and perspective, as seen.
- 9 We again included a more panoramic view in our
- 10 written testimony to amplify on what that view
- 11 looks like as you turn your head or perhaps move
- 12 slightly. So that's the intent of including the
- 13 panoramic view.
- I will state again that I believe KOP-3,
- as we photographed it, is reasonably
- 16 representative of views from that area.
- 17 Q How large is KOP-3? A quarter of a mile
- by a quarter of a mile? Half a mile by half a
- 19 mile?
- 20 A How large?
- Q Um-hum.
- 22 A I'm not understanding the question.
- 23 Q You chose one particular spot to be
- representative of KOP-3, is that correct?
- 25 A Yes, one viewpoint on the ground. Yes,

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1 one view.
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- 2 Q And due to a misunderstanding you meant
- 3 this to represent a view from the homes back in
- 4 the trees, not of the homes on the meadow?
- 5 A Now I'm confused.
- 6 Q You said that this actually, your
- 7 number, the view from the Vedder Road residential
- 8 area actually represents more the view from homes
- 9 in the trees more than the homes on the meadow?
- 10 Is that a correct paraphrasing of your statement?
- 11 A I'm becoming less clear on what we're
- 12 talking about. Are you looking at a particular
- graphic that I could look at simultaneously?
- 14 Q I'm looking at your submitted view from
- 15 Vedder Road residential area that was submitted in
- 16 testimony.
- 17 A Okay, I have a larger version. Does it
- 18 look like this?
- 19 Q That's correct, the top one.
- 20 A Okay.
- 21 Q Top right.
- 22 A Okay. The top right, yes. The top
- 23 right is supplemental information that shows a
- view from the forested area.
- 25 Q Where in your testimony do you clarify

that this is a representative view of homes in the

- forested area primarily?
- 3 A Just one moment, I'll get a copy of my
- 4 written testimony here. I'm not sure if I have
- 5 the same page numbers. We have some headings on
- 6 our -- on my written testimony there's a heading
- 7 D, analysis of potential impacts: item 1 views
- 8 from state route 299; item 2, views from the
- 9 Vedder Road residential area.
- 10 Q Okay, this would be in your filed
- 11 testimony that Three Mountain submitted. Could
- 12 you give me a page number?
- 13 A On mine I don't know if I have the same
- 14 page numbers, as I say. It could be page 5 --
- MS. COTTLE: Page 5.
- MS. GAYLE: -- page 5 and 6. The bottom
- of page 5, item 2, views from the Vedder Road
- 18 residential area.
- MS. CROCKETT: I found it, thank you.
- 20 MS. GAYLE: Okay. And continuing on to
- 21 the top of page 6 we refer to this view.
- BY MS. CROCKETT:
- 23 Q Since KOP-3 represents a residential
- 24 area, and that you feel that the view, those homes
- 25 that would be impacted represent a small amount of

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1 that residential area, I would assume that you
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- 2 know the size of that residential area. How many
- 3 homes are located in KOP-3, Ms. Gayle?
- 4 A KOP-3 represents approximately six
- 5 homes, the view of approximately six homes. And I
- 6 believe you've offered that it could be as many as
- 7 11 homes.
- 8 Q Have you been out to KOP-3, yourself,
- 9 personally?
- 10 A Yes, I have.
- 11 Q In actuality the Vedder Road residents
- 12 number over 25. All the homes that are along that
- 13 Vedder Road access.
- Now, to have 11 of that 25 on the
- 15 meadow, does that change your impact from
- insignificant to moderate or possibly substantial
- if close to 50 percent of the homes in that
- residential area are on that meadow, and that's
- 19 the view, as Mr. Murray has shown, that all those
- homes on the meadow share?
- 21 A Well, let's see. Again, we have
- 22 indicated there are some 20 homes in the Vedder
- 23 Road residential area. We're not in disagreement
- 24 with you there.
- 25 We have approximated the number of homes

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1 along the meadow, and it is that worst case
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- 2 condition that KOP-3 reflects.
- Now, as we analyze the impacts, and I
- think this is where the visual simulation, itself,
- is quite useful, we conclude that the overall
- 6 visual effects as seen from KOP-3 are relatively
- 7 minor for the reasons that I stated previously.
- 8 So, in terms of the analysis that we've
- 9 provided, we've described the change that would
- 10 occur. We've created an accurate and realistic
- visual simulation to portray the appearance of the
- 12 project as seen from that location. And we've
- 13 concluded that, yes, the project would be
- 14 partially visible, but the visual impact would be
- 15 less than significant for the reasons that I
- 16 previously stated.
- 17 And I do believe that the visual
- 18 simulation we prepared is very illustrative of
- 19 those visual effects.
- 20 Q Are we talking about the panoramic view
- 21 from Vedder Road area that the AFC simulation that
- you included in this same photo in your testimony
- 23 that's also the bottom picture here that's on the
- 24 screen?
- 25 A Yes.

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1 MS. CROCKETT: Could staff show
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- 2 Mr. Murray's picture again?
- 3 BY MS. CROCKETT:
- 4 Q Now, your simulation and Mr. Murray's
- 5 are quite different in the impact of a 10 megawatt
- 6 plant and the plume on the valley.
- 7 You're showing in your simulation a
- 8 panoramic view which tends to minimize the size of
- 9 things because of the angle of the lens, is that
- 10 correct?
- 11 A The panoramic view does tend to minimize
- 12 the vertical dimension.
- 13 Q Okay. We'll get into this in plume
- 14 analysis and it's already been entered into
- 15 evidence so I feel comfortable bringing it up at
- this point, but it has been agreed by both staff
- 17 and your plume analysis expert that they're going
- 18 to evaluate the tree height at 150 feet
- 19 approximately, correct?
- 20 A You know, I'm really not appearing to
- 21 represent the analysis of the plume. So that's a
- little bit outside of my scope and my oral
- testimony, as well as my written.
- MS. COTTLE: And I'm going to object to
- 25 any further questions on that subject from this

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1 witness.
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- MS. CROCKETT: Okay.
- 3 BY MS. CROCKETT:
- 4 Q Do you feel qualified to make a visual
- 5 impact estimate on the plant, itself?
- 6 A Yes, that --
- 7 Q On this view?
- 8 A Well, I believe that's what I've been
- 9 speaking about for the last several minutes.
- 10 Q But we're in agreement there's
- 11 substantial differences on the views that you're
- 12 using to represent the impacts and the views that
- I'm using to show what I feel is the homeowners'
- 14 representation of the view. We're definitely not
- in agreement.
- MS. COTTLE: Is that a question?
- 17 MS. CROCKETT: It is.
- 18 BY MS. CROCKETT:
- 19 Q Are we in agreement or are we in
- disagreement, Ms. Gayle?
- 21 A What I can speak to is my comfort level
- 22 based on my expertise --
- Q That'll be fine.
- 24 A -- KOP-3, as presented in the AFC, and I
- 25 would like to just note here that the panoramic

1 view attached to my written testimony was supplied

- 2 to provide additional information.
- 3 The original analysis is based on the
- 4 view that's highlighted here as less than half of
- 5 the whole view angle. It was taken with a 50 mm
- 6 lens, and that is the simulation view that stands
- 7 in the AFC as the original simulation view.
- 8 Q Continuing on with your impact, did you
- 9 interview any of the homeowners on the meadow
- 10 about the time spent in their home, the impact of
- 11 this view on their home? Did you note -- okay,
- 12 let me go, that will be question one.
- 13 A We did not interview any of the
- 14 homeowners. We did select this area for study and
- we did specifically select KOP as the worst case
- 16 because we believe that residential viewers are
- among the most sensitive to visual change.
- 18 Q Correct, I agree with you. Did you note
- in your review of KOP-3 the orientation of those
- 20 homes on the meadow, where the front of the home,
- 21 the access to the home, is, and where the visual
- living areas are oriented?
- 23 A We did not do a site-specific visual
- 24 analysis of any of the homes, nor did we have that
- level of detailed information.

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1 Q So, what you're saying is then you
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- 2 really don't understand what the visual impacts
- 3 will be to those --
- 4 MS. COTTLE: I believe that's
- 5 argumentative.
- 6 HEARING OFFICER BOUILLON: Yeah, I think
- 7 that's argument, Ms. Crockett.
- 8 MS. CROCKETT: Thank you. Let me
- 9 rephrase that.
- 10 BY MS. CROCKETT:
- 11 O You did not note the orientation of
- these homes that you have made an evaluation on
- visual impact, is that correct?
- 14 A Let me go back to the view that we
- 15 showed as KOP-3. It is a worst case view because,
- 16 as you will note looking at it, it orients
- 17 directly toward the plant. So it's a view near
- 18 the edge of the meadow that looks directly at the
- 19 plant. It doesn't look away from the plant.
- 20 So that any home that looks toward the
- 21 meadow and has a fairly direct view would have
- 22 similar orientation. I would say we did give
- 23 thought to trying to analyze the worst case for
- the representative view.
- Q Okay, and you're using the panorama as

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1 your view of the worst case view, or are you using
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- the upper right-hand photo in your explanation?
- 3 A Neither. I was referring to figure --
- 4 in the AFC figure 6 -- can anyone help me out? I
- 5 think it's 6-8A and B, that's the view I'm
- 6 referring to.
- 7 Q Oh, good, I don't have the AFC with me.
- 8 The one time I didn't bring everything.
- 9 A Now with the lights turned down it may
- 10 not be useful. This is an exact replication at a
- larger scale of KOP-3, the before, the after.
- 12 This is the 50 mm in the normal cone of vision
- 13 looking directly towards the plant. And this is
- 14 the simulation showing the visual impact of the
- 15 proposed facility.
- Q We're all in agreement, that's a 500
- megawatt plant, is that correct, Ms. Gayle?
- 18 A Yes.
- 19 O The simulation?
- 20 A The simulation is based on topographic
- and engineering drawings.
- Q Okay.
- MS. CROCKETT: If staff could show Mr.
- Murray's photograph one more time. Please keep
- 25 that there.

1	ΒY	MS.	CROCKETT:

- 2 Q Since you felt that you could show the
- 3 impact of the plume, let me show you the impact of
- 4 the 10 megawatt plume in --
- 5 MS. COTTLE: Again, we're not talking
- about the plume with this witness.
- 7 MS. GAYLE: Excuse me. Just to clarify,
- 8 the simulation does not show the plume.
- 9 BY MS. CROCKETT:
- 10 Q I thought you just pointed out -- oh,
- 11 you pointed -- I'm sorry, you pointed out the
- 12 plant site, is that correct? And the tree visible
- just above the trees?
- 14 A That's correct, that's correct, the
- 15 plume is not shown in the simulation. This, as
- 16 you can see --
- 17 Q Right.
- 18 A -- the top photo is existing. If you're
- 19 looking at that, that's an existing element of the
- sky, that's not a simulation.
- 21 Q Thank you. Back to your visual
- 22 evaluation, you did an evaluation on the impact of
- 23 the homeowners without going to the actual
- viewsheds that they have, is that correct?
- 25 A Again, yes, just to restate what we did

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do. We evaluated the entire Vedder Road
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- 2 residential area as a sensitive viewing location.
- 3 The 20-plus homes. And selected a vantage point
- 4 that represents a worst case condition.
- 5 Q The final statement in your appraisal of
- 6 the viewshed is that it is low to moderate for the
- 7 homeowners, is that correct?
- 8 A No, we did not make that statement.
- 9 Q I may have my data mixed up. Could you
- 10 clarify what your final estimate for the
- 11 homeowners in that area will be?
- 12 A We narratively described what the change
- would be, using the simulation as a tool. We
- 14 described the visual changes and we evaluated
- 15 those in terms of their level of impact. And we
- 16 concluded that they were minor changes, or minor
- impacts.
- 18 And we then recommended mitigation
- measures to further reduce those.
- 20 Q Which is the 12-foot berm and the
- 21 planting of more trees for cover, correct?
- 22 A Use of color, finishes, as well.
- 23 Q How old do you estimate the trees at the
- 24 east side of the meadow currently?
- 25 A I really don't know.

1 Q You have made the statement that they

- will get larger and help shield the homeowners
- from the plant. You have to expect some sort of
- 4 growth from them. Do you expect a 10 percent
- 5 growth, a 20 percent growth?
- 6 A I really couldn't say.
- 7 Q So that's just a guess that that will
- 8 shield the homeowners from that plant, is that
- 9 correct?
- 10 A I think our statement, let me find it
- 11 here, it was along the lines that we anticipate
- 12 the trees could get taller, in which case it would
- 13 provide some additional shielding.
- 14 O Will the 12-foot berm shield the
- 15 homeowners from the view of the plant currently as
- 16 it's proposed?
- 17 A I believe the berm is designed to
- 18 address more the foreground view impacts. In
- other words, foreground is certainly less than a
- 20 mile. Now, this viewing distance is over a mile
- 21 away. And so the berm would be less addressing
- 22 distant impacts or mid-range impacts, and more
- 23 addressing foreground visual impacts such as from
- 24 Black -- is it Black Ranch Road -- Black Ranch
- 25 Road.

1 Q And none of the homeowners live on Black

- 2 Ranch Road, the road of KOP view 3?
- 3 A Yes.
- 4 Q That makes a difference in their
- 5 viewshed, doesn't it?
- 6 A Well, again, I believe that in terms of
- 7 addressing those visual impacts, including the
- 8 visual simulation, we have described an evaluated
- 9 the visual effect.
- 10 Q You have described it as, on page 6 of
- 11 your testimony, that your impression is the
- 12 project's visual impacts on the Vedder Road
- residential area will be less than significant.
- MS. COTTLE: Is there a question there?
- 15 HEARING OFFICER BOUILLON: That's not a
- 16 question, Ms. Crockett.
- MS. CROCKETT: No. I'm going back to
- her statement that she had not stated that it was
- 19 a less than significant impact.
- 20 HEARING OFFICER BOUILLON: Don't help
- 21 her, don't argue for her or argue against her.
- 22 Ask her questions.
- MS. CROCKETT: I was leading to a
- 24 question.
- 25 HEARING OFFICER BOUILLON: And I think

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1 you've established your point that apparently your

- 2 photograph shows something different than her
- 3 photograph establishes. And if you want to put
- 4 your witness on to tell us what his photograph
- 5 shows, I think you can do that. But quit trying
- 6 to drag it out of this witness, because she has,
- only today, seen that photograph.
- 8 MS. CROCKETT: Okay, unfortunately what
- 9 I was planning is Mr. Murray would have been here
- 10 to testify on noise. At this point I will ask one
- other question, and then I will be finished with
- this witness.
- 13 BY MS. CROCKETT:
- 14 Q How many different weather conditions --
- 15 how many times were you at the site on KOP-3, and
- were the weather conditions varying?
- 17 A I was there twice.
- 18 Q Okay.
- 19 A And I would say the weather conditions
- 20 did vary.
- Q Was there a visibility problem during
- 22 any one of those days?
- 23 A Visibility meaning?
- Q Seeing the proposed plant site. Could
- 25 you see it from KOP-3 comfortably on both visits?

1 A With varying degrees of haze, yeah. Um-

- 2 hum.
- 3 Q Thank you.
- 4 MS. CROCKETT: No further questions.
- 5 HEARING OFFICER BOUILLON: Any redirect?
- 6 MS. COTTLE: Yes.
- 7 REDIRECT EXAMINATION
- 8 BY MS. COTTLE:
- 9 Q Ms. Gayle, I'd like to ask you a few
- 10 questions about this photo that Ms. Crockett has
- 11 asked you to look at.
- 12 Other than the statements that Ms.
- 13 Crockett has made today during her cross-
- 14 examination do you have any information about
- where that photo was taken from?
- 16 A No, I have no information.
- 17 Q Do you have any information about what
- 18 kind of camera was used, or the other conditions
- 19 that you would need to know in order to evaluate
- that photograph, other than what Ms. Crockett has
- 21 stated today?
- 22 A No, I have no information on that.
- 23 Q Is it your understanding that this photo
- is intended to be -- or has been represented as
- 25 being taken from a mile away from the project

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1 site?
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- 2 A I would assume it was taken from over a
- 3 mile away from the site.
- 4 Q One more question about the photograph.
- 5 In this photograph can you see any of the existing
- 6 plant structures, the physical structures?
- 7 A I'm looking at something over there
- 8 right now, it's very poor quality, I can't really
- 9 see too much.
- 10 Q Okay.
- 11 A That does help, and I think I would just
- 12 need to scrutinize it in more detail to say
- further what I would see in the photo. I'm not
- quite prepared to do that from here.
- 15 Q And just to clarify, this is the first
- time that you've seen this photograph?
- 17 A That's correct.
- 18 Q I'd like to ask you some questions about
- 19 Ms. Crockett's statement that there are 11
- 20 residences situated along the meadow.
- 21 What did you base your testimony earlier
- on when you had testified that there are six
- 23 residences along the edge of the meadow in the
- Vedder Road residential area?
- 25 A Again, just to be clear, we've always

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indicated six as an approximate number. We've
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- 2 never tried to indicate it precise. The work that
- 3 supports that is our field reconnaissance and
- 4 review of aerial photography, as well as USGS
- 5 mapping.
- 6 Q Are you aware -- strike that. To your
- 7 knowledge has any testimony been submitted in this
- 8 case, or any other materials been filed in this
- 9 case indicating that your estimate of six
- 10 residences is not correct?
- 11 A Not to my knowledge. The term
- 12 approximately six has been in the AFC and again in
- 13 the written testimony. This is the first time
- 14 I've heard anything different.
- 15 Q Okay. And just to clarify, exhibit 4
- that's attached to your testimony, --
- 17 A Yes.
- 18 Q -- view 1 on that exhibit, --
- 19 A Yes.
- 21 from the residential area that has forest -- that
- is shielded by forestry in the foreground, is that
- 23 correct?
- 24 A That's correct. It's simply a
- 25 representative photo of the less affected

- 1 residential area that's situated within the
- 2 forest. And you will note on that graphic we have
- 3 a viewpoint map. It's view 1. So it pulls back
- from the edge of the meadow.
- 5 Q And is it correct that this is not
- 6 intended to represent views from homes situated
- 7 along the meadow?
- 8 A That's correct.
- 9 Q And therefore is this the simulation or
- any indication of the view from KOP-3? This view
- 11 1, is that part of KOP-3?
- 12 A No, not at all. And, again, I believe
- on page 5 and 6 of the written testimony we've
- tried to be very specific about what view 1
- 15 represents versus what view 2 represents, in the
- lower view.
- 17 And I had hoped it was clear in the
- 18 written testimony.
- 19 Q Okay, I'll just ask you one more
- 20 question. View 2 on the same exhibit 4, is it
- 21 correct that that is the visual simulation from
- 22 KOP-3 which are the approximately six residences
- 23 that you believe will be most affected visually by
- the project?
- 25 A Could you just --

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1 Q I'm sorry.
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- 2 A -- repeat that?
- 3 Q Maybe I'll ask it a different way.
- 4 Could you just describe one more time what view 2
- 5 on exhibit 4 is intended to represent?
- 6 A Yes. View 2 incorporates the original
- 7 KOP-3 view that was shown as a before-and-after
- 8 simulation image in the AFC. I believe it was
- 9 figure 6-A and B -- 6-8A and B.
- 10 It incorporates that view with a wider
- 11 panoramic view that looks further to the south to
- 12 introduce more of the visual context of this
- 13 sensitive viewing location.
- 14 MS. COTTLE: Thank you, I have no
- 15 further questions.
- 16 HEARING OFFICER BOUILLON: Ms. Crockett,
- 17 do you have any recross directed to the redirect?
- MS. CROCKETT: Yes, thank you.
- 19 HEARING OFFICER BOUILLON: Please don't
- ask any questions about where the pictures are
- 21 taken from. I'm sure --
- MS. CROCKETT: I promise.
- 23 HEARING OFFICER BOUILLON: -- the
- 24 Committee, by this point, fully understands that.
- 25 //

1	RECROSS-EXAMINATION
2	BY MS. CROCKETT:
3	Q In Ms. Cottle's comment about whether or
4	not you can see the plant from that picture, is it
5	not true that the new plant will be substantially
6	larger than the current plant?
7	A In terms of height, the existing boiler
8	building I believe is about 88 feet tall, and the
9	existing stacks are about 125 feet.
10	The new turbine building would be about
11	104 feet tall, and the new stacks would be about
12	140 feet tall.
13	Yes, it would definitely be taller.
14	Q So granted at this point Burney Mountain
15	Power is not that visible, and as you had stated
16	earlier, parts of the new proposed project would
17	be visible, is that correct?
18	A Yes.
19	MS. CROCKETT: Thank you.
20	HEARING OFFICER BOUILLON: All right,
21	there being no further questions, do you wish to

24 MR. EVANS: Shall I speak this way,

attention. Then you needed help.

25 or --

22

23

offer -- oh, I'm sorry. You said you'd get my

1 HEARING OFFICER BOUILLON: If you could
--

- 2 get over there to where you could reach a
- 3 microphone, please, for the record. I'm speaking
- 4 to Mr. Evans who has some questions, and I'm not
- 5 sure that the record could pick up his voice.
- 6 MR. EVANS: I'm not even sure it's
- 7 supposed to be asked, but anyway.
- 8 CROSS-EXAMINATION
- 9 BY MR. EVANS:
- 10 Q In the AFC -- I have to apologize for
- 11 being very poorly prepared. I really didn't
- 12 anticipate asking any questions today -- but in
- 13 the AFC you have what's known as a key observation
- point number 2.
- I don't have a book to tell anybody what
- it is, but anyway --
- 17 A I have one here if you'd like to refer
- 18 to it.
- 19 Q All right, well, can we work off of
- 20 yours and --
- 21 A Sure.
- 22 Q Okay. Key observation point number 2,
- 23 which is a --
- 24 A Yes, um-hum.
- 25 Q -- it's a view of the McLeod River

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1	- ' I	_	1 1 10
1	Raliroad	- 1	understand?

- 2 A Yes, that's correct.
- 3 Q All right. Now, you state that there
- 4 will be no impact from that view. But the same
- 5 day I received that information from you people, I
- 6 also received a notice from the McLeod River
- 7 Railroad that they were going to run a tourist
- 8 exhibition train three times next summer, and it's
- 9 going to come right up that track.
- 10 And I'm sure that the people that are on
- 11 that train that want to see a nice view aren't
- going to appreciate a power plant, I don't think.
- 13 How do you explain that, or do you take
- it into consideration?
- 15 A Well, we actually did take that view
- 16 into consideration, and the AFC includes a visual
- 17 simulation showing the appearance of the project
- 18 from the railroad corridor.
- I have a version of that with me, but if
- 20 you notice the simulation in the AFC you would see
- 21 the before and after, and the visual change that
- 22 would occur.
- Now, as you probably know, there's an
- 24 existing transmission line that runs up that
- 25 corridor at present. Some portion of the, I

1 believe the substation, would be seen from the

- 2 railroad.
- And, again, the visual effects, the
- 4 project would be somewhat visible. It wouldn't
- 5 substantially alter the visual character as seen
- from the rail corridor.
- 7 And I think the CEC Staff actually
- 8 pointed out that this viewpoint that is now on the
- 9 screen is not of particular interest to the public
- 10 as far as visual impact. It's barely used at all.
- 11 It's not accessible by foot, by car. There's not
- 12 frequent rail use of the line.
- So, in terms of the number of affected
- 14 viewers, not to mention the view, itself, would be
- 15 relatively brief in duration as the train rolls by
- 16 the site, we did conclude that the visual impacts
- 17 would be less than significant.
- 18 O Okay. Now, also you say this plant will
- 19 have no impact on highway 299.
- 20 A Excuse me, we didn't say that. We
- 21 didn't say it would have no impact.
- Q Well, a small impact.
- 23 A Minor visual effects.
- Q A little impact. I'm not going to argue
- with you.

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1 A Okay.
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- 2 Q Now, were you in Burney on January the
- 3 7th, the year 2000, at approximately 7:00 in the
- 4 morning?
- 5 A No, I was not.
- 6 Q Okay. The temperature at that time was
- 7 around 20 degrees; there was a very very low
- 8 inversion layer. In fact, it was so low that I
- 9 almost ran into the back-end of a hay truck.
- Now, how do you claim that that's not an
- 11 impact on 299?
- 12 A I wonder, are you referring to the
- 13 plume?
- 14 Q Well, whatever you call it, the water
- 15 coming across the road. It was just short of
- 16 being Burney Falls is what it was.
- 17 A I'm afraid I'm going to have to stay out
- of this one because there's another expert witness
- 19 who will be discussing the effects of the plume.
- 20 MS. COTTLE: And I would point out,
- also, if you'd like to ask that question you can
- 22 ask it of our witness Ken Richmond, when he takes
- the stand.
- 24 MR. EVANS: Okay, whatever. I'm just
- 25 trying to get information is all.

1	RV	MR.	EVANS:
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2	Q Now, this is one last question and this
3	is strictly, I don't even know what the word is to
4	describe it, how do you evaluate visual impact?
5	In other words, if I had a Van Gogh hanging here,
6	and I put a transparency over it of that power
7	plant or whatever that thing is up on the wall,
8	how would you make a decision what it does to Van
9	Gogh?
10	A Okay. That's a very difficult question
11	to answer quickly, but I'll try.
12	Essentially what we're looking at in
13	visual impact assessment is the visual change that
14	would occur from the existing visual conditions to
15	the post-project conditions, if you will.
16	And one of the techniques, the tools we
17	use is the visual simulation, the before-and-after
18	images that we included.

In the case of Van Gogh, I don't think

it's a particularly useful example of doing

environmental impact assessment for visual change.

I think we have to restrict ourselves to things in

the environment, and agree that this is not a

matter of taste, whether we like red or blue or

black or white, but again using some accepted

1 methods and criteria for evaluating the changes

- 2 that would occur.
- 3 Things like visual contrast in terms of
- 4 line and color, visual contrast in terms of scale.
- 5 CEQA gives us a very effective criteria in looking
- 6 at view blockage. Do we have a scenic vista that
- 7 would be affected by view blockage. Those kinds
- 8 of things.
- 9 So we do use accepted professional
- 10 methods and criteria. And we try to stay in the
- 11 realm of facts and objectivity to the greatest
- 12 extent possible.
- But that's a very quick answer to what I
- think is a very complicated question. I'm not
- sure if it addresses your concern or not.
- MR. EVANS: Well, okay, thank you very
- much, and that's all.
- 18 HEARING OFFICER BOUILLON: Redirect
- 19 based on that?
- MS. COTTLE: I don't have any redirect.
- 21 HEARING OFFICER BOUILLON: Do you have
- 22 testimony to offer?
- MS. COTTLE: Yes, I'd like to offer Ms.
- 24 Gayle's direct testimony, as well as section 6.6
- of the application for certification to be moved

1	2	L-1			4-1-2	4.2
1	into	tne	record	at	tnis	time.

- 2 HEARING OFFICER BOUILLON: Any
- 3 objection? It will be admitted.
- 4 MS. COTTLE: Thank you.
- 5 HEARING OFFICER BOUILLON: You are
- 6 excused, thank you very much.
- Well, that was a very long 20 minutes.
- 8 (Laughter.)
- 9 HEARING OFFICER BOUILLON: Does the
- 10 applicant have other witnesses they can put on at
- 11 this time?
- MS. COTTLE: We have one other visual
- resources witness.
- 14 HEARING OFFICER BOUILLON: You do?
- MS. COTTLE: Yes.
- 16 HEARING OFFICER BOUILLON: Proceed.
- MS. COTTLE: Ken Richmond.
- Whereupon,
- 19 KEN RICHMOND
- 20 was called as a witness herein, and after first
- 21 having been duly sworn, was examined and testified
- 22 as follows:
- 23 DIRECT EXAMINATION
- 24 BY MS. COTTLE:
- 25 Q Please state your name for the record.

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1 A Ken Richmond.
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- 2 Q Did you prepare the testimony on
- 3 potential visual impacts from cooling tower plumes
- 4 that was submitted in this proceeding by Three
- 5 Mountain Power?
- 6 A Yes, I did.
- 7 Q And were your qualifications included
- 8 with that testimony?
- 9 A Yes, they were.
- 10 MS. COTTLE: I'd like to ask that Mr.
- 11 Richmond's qualifications be stipulated to by the
- 12 parties.
- 13 HEARING OFFICER BOUILLON: That's fine.
- 14 BY MS. COTTLE:
- 15 Q Mr. Richmond, is your testimony true and
- 16 correct to the best of your knowledge?
- 17 A Yes, it is.
- 18 Q And do you have corrections or
- modifications to your testimony at this time?
- 20 A Yes. The response to the staff data
- 21 request 39 included several tables. Tables 2, 3
- and 4 were in the final section of this document
- were submitted in error. They're not the tables I
- 24 relied upon in my testimony or analysis.
- Q And, Mr. Richmond, you're referring to

1 CEC Staff data request 39, which was attached as

- 2 exhibit 2 to your testimony, is that correct?
- 3 A That's correct.
- 4 Q On March 3rd Three Mountain Power filed
- 5 errata to your testimony. Do you have a copy of
- 6 that errata before you?
- 7 A Yes.
- 8 Q And the errata consisted of three tables
- 9 which were labeled table 2, table 3 and table 4.
- 10 Are the tables submitted in the errata the tables
- 11 that should have been submitted in a response to
- 12 CEC Staff data request 39?
- 13 A Yes.
- 14 Q And are those the tables, or the data in
- them, was that the data that you relied on in
- 16 preparing your analysis of the cooling tower
- 17 plumes for the Three Mountain Power Project?
- 18 A That was a portion of it, yes.
- 19 O And did the tables that were submitted
- 20 as errata to your testimony change the analysis or
- 21 conclusions in your prefiled testimony in any way?
- 22 A No.
- 23 Q Thank you, Mr. Richmond.
- MS. COTTLE: I don't have any further
- 25 questions. I would like to have the errata that

1 was submitted on March 3, 2000 marked as an

- 2 exhibit.
- 3 HEARING OFFICER BOUILLON: All right.
- 4 That will be number 60.
- 5 MS. COTTLE: Thank you. The witness is
- 6 now available for cross-examination.
- 7 HEARING OFFICER BOUILLON: Does staff
- 8 have any questions?
- 9 MR. RATLIFF: No.
- 10 HEARING OFFICER BOUILLON: Mr. Wolfe?
- 11 MS. COTTLE: I have extra copies if
- 12 you'd like a couple.
- MS. CROCKETT: Thank you.
- 14 HEARING OFFICER BOUILLON: Ms. Crockett?
- MS. CROCKETT: Yes, I have a few
- 16 questions, thank you.
- 17 CROSS-EXAMINATION
- 18 BY MS. CROCKETT:
- 19 O Good afternoon.
- 20 A Hello.
- 21 Q You state on page 2 of your testimony,
- 22 Mr. Richmond, that you are basing your plume
- 23 analysis on the MED station data collected at
- 24 Brush Mountain during 1995.
- 25 A That's correct.

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1 Q Why was 1995 used?
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- A It was provided to me prior to the

 analysis. Since it was used in air quality

 analysis it was provided before the analysis that

 go into our plume, so we have one data set used
- 7 Q Does this MED station give you daily
- 8 data that's collectable?

for both analyses.

- 9 A It reports hourly data, yes.
- 10 O Was there 1998 data available?
- 11 A I believe there is 1998 data available.
- 12 Q Can you explain why 1995 was chosen?
- A No, I can't.
- 14 Q Do you feel it's representative of the
- 15 data?

- 16 A I have looked at some of the other data
 17 and 1995 is representative of the data.
- 18 Q Are you aware of the EPA's prevention of 19 significant deterioration document, their ambient
- 20 guideline, monitoring guidelines?
- 21 MS. COTTLE: Objection. I just want to
- 22 make clear from the outset that any questions that
- 23 are directed to the MED data and the subject of
- 24 PSD requirements has been determined to be
- 25 addressed in part two of this hearing.

1	∆nd	this	witness	is	not	testify	ina	tο
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- 2 any air quality impacts or anything that has to do
- 3 with the PSD program. And I'm going to object to
- 4 any questions on that subject line.
- 5 HEARING OFFICER BOUILLON: That's
- 6 correct, I believe Ms. Crockett understands that.
- 7 MS. CROCKETT: I'm thinking.
- 8 BY MS. CROCKETT:
- 9 Q Why would 1995 data be used, knowing
- 10 that there could be a question raised about the
- 11 time of that data?
- 12 HEARING OFFICER BOUILLON: Ms. Crockett,
- 13 I'm going to object, myself, to that question.
- MS. CROCKETT: Okay.
- 15 HEARING OFFICER BOUILLON: He's already
- said he didn't know why it was used.
- MS. CROCKETT: Okay, thank you.
- 18 BY MS. CROCKETT:
- 19 O What fields were used from that data to
- 20 input into your SACTI program?
- 21 A Wind speed, wind direction, temperature,
- 22 relative humidity.
- 23 Q And you mentioned wind speed at the
- 24 Redding Airport. Why was that used?
- 25 A Wind speed at what airport did you

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1 mention --
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- 2 Q The Redding Airport.
- 3 A We didn't use any wind speed at the
- 4 Redding Airport.
- 5 Q That may have been a mistake, I may
- 6 stand corrected on that. Okay, I'm sorry.
- 7 You mentioned in your plume impact that
- 8 there is a view of the Sierra Pacific plume and
- 9 the Big Valley Mill plume, is that correct, or is
- that from Ms. Gayle's testimony?
- 11 A I don't recall mentioning that.
- 12 Q Okay. What is the evaluation in your
- 13 tables of the average height of the plume for how
- 14 much percentage of the year? The average height
- of the plume?
- 16 A From the top of the tower typically
- during the daytime it would be about 40 meters
- above the top of the tower.
- 19 O 120 feet?
- A Roughly, yes.
- 21 Q You mention --
- MS. CROCKETT: Are mixing heights and
- dispersion going to be phase two?
- 24 HEARING OFFICER BOUILLON: Excuse me, I
- couldn't hear you, Ms. Crockett.

1 MS. CROCKETT: Are mixing heights and

- dispersion going to be an area of phase two? This
- 3 will be under plume analysis.
- 4 MS. COTTLE: I guess I'm not sure what
- 5 the question is. I'd have to hear the question to
- 6 know whether it was relevant to the subject area.
- 7 MS. CROCKETT: At the bottom of page 2
- 8 Mr. Richmond mentions dispersion modeling and
- 9 assessment for the project, and the twice daily
- 10 mixing heights.
- MS. COTTLE: If you have a question
- 12 about something in his direct testimony I don't
- 13 have an objection.
- MR. RICHMOND: The mixing heights were
- 15 -- the same mixing heights that were used in air
- 16 quality dispersion analysis are also input into
- the SACTI model, if that's your question.
- 18 BY MS. CROCKETT:
- 19 Q What are those mixing heights?
- 20 A I believe they're based on Medford upper
- 21 air data, but I didn't prepare the data set, it
- was given to me. So that's second-hand.
- 23 Q How often will this 120-foot plume be
- 24 visible during the year? You mention long periods
- of -- during periods of fog and low overcast.

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1 A Well, if it's foggy out, I would say
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- that you probably wouldn't see the plume unless
- 3 you were standing right next to it.
- 4 If it was a nice clear day, early in the
- 5 morning, with a bright, blue sky, I'd say you'd
- 6 see it.
- 7 Q You mentioned the droplet size in the
- 8 dispersion modeling, is that correct?
- 9 A I don't believe I do.
- 10 MS. CROCKETT: I'm batting a thousand on
- 11 this --
- 12 MR. RICHMOND: If you can refer me to
- 13 it.
- 14 BY MS. CROCKETT:
- 15 Q Okay. I can't find it right this
- 16 moment. But, how often do you feel a 750-foot
- 17 plume would be visible?
- 18 A Do you mean high or lengthwise?
- 19 Q High, above the stack.
- 20 A 750 feet, so let's say roughly just pick
- 21 a number, 300 meters high, during the day a
- 22 condensed plume might reach that height say 14
- percent of the time, maybe 20 percent of the time.
- 24 That's just the condensed plume. That doesn't
- 25 mean you'd be able to see it or not. If there

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were clouds overhead or fog, your view is blocked,
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- you wouldn't see it.
- 3 From all the predictions that I
- 4 performed just say when the plume is condensed,
- 5 not when it is visible.
- 6 Q For clarification could we show this
- 7 picture number 1 that we've been discussing again?
- 8 A Surely.
- 10 you can see it more clearly?
- 11 A I looked at it quite awhile.
- 12 Q Okay. How much of that plume is
- 13 condensed?
- 14 A How much of the plume is condensed?
- Of the plume in that picture is
- 16 considered condensed.
- 17 A The condensed part is the portion that
- 18 appears like cloud.
- 19 Q So from the top of the trees till it
- 20 dissipates is considered a condensed plume?
- 21 A Yes.
- Q How high would you estimate that plume?
- 23 A I have no way of knowing.
- Q Are you familiar with a caliper?
- 25 A A caliper?

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1 Q Um-hum.
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- 2 A In what context? For measuring distance
- on a photograph or a map or something?
- 4 Q Yes.
- 5 A Yes.
- 6 Q Would you like to caliper that out and
- 7 give us an estimation?
- 8 HEARING OFFICER BOUILLON: I'm going to
- 9 strike that question, Ms. Crockett. I don't think
- 10 there's any foundation laid either for his ability
- 11 to do so, or the accuracy of the photograph.
- MS. CROCKETT: Thank you.
- 13 BY MS. CROCKETT:
- 14 Q In your plume analysis you state that
- for the sake of consistency that you will evaluate
- the trees at 150 feet in height, is that correct?
- 17 A I didn't mention anything about the
- 18 trees. Perhaps you're referring to the staff
- 19 assessment.
- 20 Q I'm sorry, thank you, the staff
- 21 assessment. Would you be comfortable with staff's
- 22 assessment of that?
- 23 A Of the height of the trees as being 150
- 24 feet?
- Q Um-hum.

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1 A Sounds reasonable.
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- 2 Q And we would estimate, would you be
- 3 willing to look at the picture and give an
- 4 estimate of approximately twice the tree height
- 5 above the trees, or --
- 6 MS. COTTLE: Excuse me.
- 7 HEARING OFFICER BOUILLON: Excuse me,
- 8 Ms. Crocket, are you trying to get him to estimate
- 9 the height of that plume based on the height of
- 10 the trees?
- I'm not going to let him do that.
- MS. CROCKETT: Okay. Thank you.
- BY MS. CROCKETT:
- 14 Q You mention in your testimony that wind
- speeds were coded as calm in the Brush Mountain
- data set, relatively frequently 15 percent.
- 17 A Yes, ma'am.
- 18 Q Are you comfortable with that large
- 19 percentage of data as coded as calm?
- 20 A I was surprised it was so large.
- Q What is the normal?
- 22 A Depends upon your situation. I've seen
- 23 places that have over 50 percent calm. If the
- anemometer is a poor anemometer. I've also seen
- 25 places that are very windy that have almost no

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1 calms.
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- 2 Q So the quality of the anemometer is very
- 3 important?
- 4 A For determining how many calms there
- 5 are?
- 6 Q Um-hum.
- 7 A Calm is just an abstract term. If
- 8 you're referring to a specific wind speed it is
- 9 less than, then an anemometer is important. For
- 10 example, if you say anything less than 1
- 11 meter/second is calm, obviously the quality of
- 12 your anemometer is important.
- 13 However, it's a different anemometer
- 14 than if you're talking about is the wind speed
- less than a tenth of a meter/second and you're
- 16 calling that calm.
- So, calm, you need to talk about wind
- 18 speed, not just calms. Calms, in my context, was,
- 19 I believe, a mile per hour.
- 20 Q Can an anemometer be set within a
- 21 specific range, or is it just due to how the
- 22 instrument is initially manufactured that it will
- 23 register? Or are there different types of
- 24 anemometers?
- 25 A There are different types of

1 anemometers. Several of them -- you know, depends

- on how you reduce the data, for example. And
- 3 anemometer may be more sensitive, but you may say
- 4 anything less than 1 meter/second is calm. Even
- 5 though the anemometer can detect it.
- 6 But, yes, so it's a function of both the
- 7 quality of the anemometer and how the data's
- 8 reduced.
- 9 O Are there differences in the anemometers
- 10 used for air quality versus CDF Forest station,
- anemometers, or are they pretty much the same?
- 12 MS. COTTLE: I think we're venturing
- down that path again with this question that we're
- 14 not supposed to be venturing down.
- 15 HEARING OFFICER BOUILLON: I'm sorry?
- MS. COTTLE: She was asking questions
- 17 about purposes of anemometers for air quality
- 18 versus other purposes, and I --
- MS. CROCKETT: Mr. Richmond is
- 20 testifying about the periods of calm, the periods
- of fog or precipitation, and I think that's
- dependent on the anemometer readings.
- 23 His data is dependent on reading this --
- 24 his report is dependent on reading this data, and
- 25 he has to be comfortable with where his data is

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1 coming from.
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- 2 And that's why I'm trying to get this
- 3 point for the plume analysis.
- 4 MS. COTTLE: Perhaps you can ask your
- 5 question again.
- 6 HEARING OFFICER BOUILLON: From what you
- 7 just said I don't think your original question was
- 8 designed to get there. So, if you want to try
- 9 again?
- 10 BY MS. CROCKETT:
- 11 Q Mr. Richmond, do you feel that the data
- 12 supplied to you indicated equipment that
- 13 correctly -- or excuse me, strike that -- was
- 14 sensitive enough to give you accurate readings for
- 15 your database?
- 16 A I have no reason to believe it wasn't
- 17 sensitive enough.
- 18 MS. CROCKETT: I have no more questions
- 19 at this time, thank you.
- 20 HEARING OFFICER BOUILLON: Any redirect?
- MS. COTTLE: No.
- 22 HEARING OFFICER BOUILLON: All right.
- 23 Mr. Evans, do you have any questions of this
- witness?
- 25 MR. EVANS: I just wanted to ask about

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1	it	being	so	foggy	on	299	that	Ι	couldn't	see	
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- 2 HEARING OFFICER BOUILLON: Excuse me,
- 3 Mr. Evans. So we get you on the record you're
- 4 going to have to sit a little closer to a
- 5 microphone.
- 6 CROSS-EXAMINATION
- 7 BY MR. EVANS:
- 8 Q On January 7th of this year the fog
- 9 across 299 was so severe that I very nearly ran
- into the rear end of a hay truck. And if you want
- 11 a collaborating witness, my wife is sitting right
- 12 up there, and boy, she's told me about that a
- 13 hundred times.
- 14 But, anyway, how or what method do you
- plan on using to keep that fog off of the highway?
- 16 It's actually a very severe safety hazard.
- 17 I can tell you what the conditions were
- that day. The temperature was 20 degrees; there
- 19 was an inversion layer that started about road
- 20 height and kept on up for about 100 feet. And yet
- 21 it was -- the conditions were terrible.
- 22 Now, can --
- 23 A Would you like me to speculate?
- Q Speculation would be interesting, yes.
- 25 HEARING OFFICER BOUILLON: No, I

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wouldn't like him to speculate.
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- MR. EVANS: You wouldn't like that,
- 3 well, I --
- 4 HEARING OFFICER BOUILLON: Let me try to
- 5 rephrase the question for you. Are you trying to
- 6 ask him what effect that plume is going to have
- 7 when an inversion layer exists on the road?
- 8 MR. EVANS: Yeah, that sounds
- 9 reasonable.
- 10 HEARING OFFICER BOUILLON: What would be
- 11 the effect of the plume when an inversion layer
- 12 exists in Burney Valley?
- MR. RICHMOND: Well, the -- although I
- 14 wasn't specifically asked to look at plume
- fogging, that is one of the outputs of the model
- 16 that I run.
- 17 The model predicts how often the plume
- 18 would actually touch down, for example, on the
- 19 ground. In order for that to occur, like you say,
- it has to be pretty cold out, and there has to be
- a mechanism for bringing it to the ground.
- 22 Usually that mechanism it has to be
- 23 pretty windy, because there's buoyancy associated
- 24 with the plume, but also like you mentioned, there
- 25 could be a really low level inversion or some

vertical barrier that could restrict the plume

- from mixing vertically. And if the road's a
- 3 little bit elevated. Those are conditions that
- 4 could lead to fogging on the road.
- 5 Those were looked at in the model that I
- 6 ran and almost all the fogging occurs right within
- 7 the site boundary. And, as I recall, on the road
- 8 the plume typically touched down less than an hour
- 9 per year in the simulations that I performed.
- 10 BY MR. EVANS:
- 11 Q This has happened twice that I know of,
- once on the 7th, and I believe again on the 18th,
- 13 but I wouldn't swear to that date.
- 14 A Well, I think you're referring to the
- existing cooling tower that's there, and I would
- 16 care to speak to its effects. But the cooling
- 17 tower that I simulated is quite a bit further away
- 18 from the road, I believe, than that cooling tower.
- 19 And I can only speak to the cooling tower that I
- 20 simulated.
- 21 But we did examine plume fogging. It
- does occur, for example, for a couple hours per
- 23 year. Most of the time the cooling tower is
- 24 sufficiently distant from the road that the
- 25 fogging occurred within the project boundary.

1 But, yes, there were a few hours that it

- 2 occurred on the road.
- 3 Q There's nothing that you can do to
- 4 alleviate this situation like, I don't know,
- 5 installing a big fan or something?
- 6 A Well, the tower that's being used is a
- 7 much more efficient, and loses a lot less water,
- for example, than the existing tower that's there.
- 9 So it's a much more modern tower, but it's a much
- 10 larger tower.
- 11 So, I'm not an engineer, I wouldn't know
- how to mitigate that particular impact.
- MR. EVANS: Okay, that's all.
- 14 HEARING OFFICER BOUILLON: Thank you,
- Mr. Evans. Any redirect?
- MS. COTTLE: I don't have any redirect.
- 17 HEARING OFFICER BOUILLON: All right, do
- 18 you want to offer his evidence?
- 19 MS. COTTLE: Yes, I'd like to offer the
- 20 direct testimony of Mr. Richmond, as well as the
- 21 errata to his testimony, which has been marked as
- exhibit 60.
- 23 HEARING OFFICER BOUILLON: Any
- objections?
- MS. CROCKETT: Yes.

1	HEARING OFFICER BOUILLON: All right.
2	MS. CROCKETT: The Burney Resources
3	Group objects. It would like to strike all
4	testimony dealing with plume evaluation and
5	dispersion modeling since the MED data comes from
6	Brush Mountain, and that has to be validated. And
7	it has not yet.
8	And we're assuming evidence being put
9	into or testimony being put into evidence, it
10	is not substantiated yet. We haven't had a ruling
11	on the MED data.
12	And everything that Mr. Richmond is
13	doing with his data set comes from Brush Mountain.
14	MS. COTTLE: The insinuation I believe
15	Ms. Crockett is making is that this data has to be
16	evaluated in terms of the PSD requirements for
17	purposes of the plume analysis. And that's simply
18	not correct.
19	Any concern she may have about the MED
20	data and the PSD requirements will be addressed in
21	the air quality portion of this proceeding.
22	However, the PSD requirements aren't
23	applicable in this subject area. And therefore we
24	believe that Mr. Richmond's testimony should be
25	admitted, and that there's no evidence suggesting

- 1 that it's not valid.
- 2 HEARING OFFICER BOUILLON: The ruling of
- 3 the Committee is that the testimony will be
- 4 admitted. That any question as to the validity of
- 5 the MED data on which his testimony is based would
- 6 go to the weight of his testimony and not to the
- 7 admissibility of it.
- 8 And, that MED data has not been ruled on
- 9 as yet.
- MS. CROCKETT: Could you clarify what
- 11 that means by on the weight of his testimony
- versus the MED data. I'm not quite clear.
- 13 HEARING OFFICER BOUILLON: I can give
- 14 you an example completely unrelated to this case.
- MS. CROCKETT: Fine.
- 16 HEARING OFFICER BOUILLON: If a man
- 17 stands up and testifies that I saw the light and
- 18 the light was green. That is admissible
- 19 testimony.
- MS. CROCKETT: Okay.
- 21 HEARING OFFICER BOUILLON: If somebody
- 22 after him gets up and says, that man's lying, and
- offer medical proof of that fact. Well, that
- 24 testimony was admitted, but it doesn't get very
- 25 much weight.

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1 MS. CROCKETT: Thank you.
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- 2 HEARING OFFICER BOUILLON: You're
- 3 excused, thank you.
- 4 Ms. Crockett, do you have any witnesses
- 5 that will testify that Mr. Richmond is blind?
- 6 (Laughter.)
- 7 MS. CROCKETT: I will gladly wait for
- 8 the MED data to be evaluated, and then maybe it
- 9 won't be --
- 10 HEARING OFFICER BOUILLON: All right,
- does the applicant have any more witnesses on --
- MS. COTTLE: No, we do not.
- 13 HEARING OFFICER BOUILLON: All right.
- Mr. Ratliff, do you have a witness?
- MR. RATLIFF: Yes, I have two witnesses.
- My preference would be to put them on as a panel
- if that's agreeable, and then have them summarize
- 18 their testimony separately. And then answer any
- 19 cross-examination questions collectively. I think
- it might go faster that way.
- I do ask if you prefer to do that now or
- 22 after a break?
- 23 PRESIDING MEMBER KEESE: Well, let me
- just ask a question. Since 30 minutes became an
- 25 hour and 20, where do we think we are?

1	MR. RATLIFF: Well, I have
2	PRESIDING MEMBER KEESE: And I hate to
3	keep this group here without any sustenance,
4	but
5	MR. RATLIFF: I think that we can
6	anticipate I don't know what questions will be
7	asked. I assume Ms. Crockett has, as well she
8	should, cross-examination of these witnesses, and
9	that may take some time.
10	And so I wouldn't want to guess that
11	we're going to be done in less than an hour.
12	PRESIDING MEMBER KEESE: Okay, we'll
13	take a break for an hour. We'll come back at
14	2:20.
15	(Whereupon, at 1:25 p.m., the hearing
16	was adjourned, to reconvene at 2:20
17	p.m., this same day.)
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1	AFTERNOON SESSION
2	2:30 p.m.
3	HEARING OFFICER BOUILLON: Mr. Ratliff,
4	do you have some do you have any more
5	witnesses?
6	MS. COTTLE: No, we had our two and
7	we're finished.
8	HEARING OFFICER BOUILLON: That's what I
9	thought. Mr. Ratliff, staff witnesses?
10	MR. RATLIFF: Staff has two witnesses.
11	The witnesses are David Flores, who is testifying
12	on visual resources, and secondarily, it's Joe
13	Loyer, who will be addressing the plume, which he
14	modeled.
15	I'd like them to both be sworn as a
16	panel, although they will testify separately
17	HEARING OFFICER BOUILLON: If they're
18	both here.
19	MR. RATLIFF: they can answer the
20	questions
21	HEARING OFFICER BOUILLON: There they
22	are.
23	MR. RATLIFF: together.
24	Whereupon,

DAVE FLORES and JOSEPH LOYER

were called as witnesses herein, and after first

- 2 having been duly sworn, were examined and
- 3 testified as follows:
- 4 DIRECT EXAMINATION
- 5 BY MR. RATLIFF:
- 6 Q Mr. Flores, did you prepare the
- 7 testimony in the final staff assessment entitled
- 8 visual resources?
- 9 A Yes, I did.
- 10 Q Is that testimony -- first of all, did
- 11 you file revised testimony subsequent to that on
- 12 February 22nd?
- 13 A Yes, I did.
- 14 Q So there is a revised copy of the
- 15 testimony that was served after the normal FSA, is
- 16 that correct?
- 17 A That's correct.
- 18 Q And what was the purpose of those
- 19 revisions?
- 20 A To look at the final analysis prepared
- 21 by our air quality staff specialist, Joe Loyer, as
- 22 to the air quality analysis -- excuse me, the
- 23 actual visible plume analysis that was prepared by
- the applicant's consultant.
- 25 Q Your testimony did not analyze the plume

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1 inasmuch as its size or the modeling that was done

- 2 by the applicant for its size or duration, is that
- 3 correct?
- 4 A That's correct.
- 5 Q Mr. Loyer analyzed that?
- 6 A Yes.
- 7 Q And your testimony is supposed to
- 8 embrace the entire area in terms of impact,
- 9 whereas Mr. Loyer's merely assesses the plume and
- 10 its size and duration?
- 11 A That's correct.
- 12 Q Okay. In its revised form is your
- 13 testimony true and correct to the best of your
- 14 knowledge and belief?
- 15 A To the best of my knowledge, yes.
- 16 Q And could you summarize it briefly,
- 17 please.
- 18 A Yes. Staff analyzed the potential
- 19 visual impacts of the proposed project and in
- 20 compliance with the appropriate LORS. As provided
- in the FSA, staff's analysis is organized as
- 22 follows:
- 23 We described the methodology used in the
- visual assessment. We described the appropriate
- 25 laws, ordinances, regulations and standards, which

1 are the LORS. And we assessed the visual setting

- 2 of the proposed power plant including the linear
- 3 facility routes.
- 4 Staff also evaluated the visual impacts
- of the proposed project on the existing setting.
- 6 As indicated in the AFC, three KOPs were
- 7 identified, and were discussed in staff's
- 8 analysis.
- 9 Staff also evaluated the compliance of
- 10 the project with the appropriate LORS, and also
- 11 evaluated the visual cooling tower plume
- 12 characteristics.
- 13 Staff also evaluated the lighting of the
- 14 proposed project site and the potential to cause
- glare and back-scatter to the surrounding area.
- And also staff recommended measures needed to
- 17 mitigate any potential significant adverse visual
- impacts of the proposed project, and to achieve
- 19 compliance with the LORS.
- In evaluating the three KOPs, staff
- 21 concluded that the project may cause significant
- visual impacts in the area of KOP-3, which is the
- 23 Vedder Road residential area. Staff discusses the
- 24 visual effects of the power plant, lighting of the
- 25 project site, and the potential to cause glare and

1	11			
T	back-scatter	to the	surrounding	area.

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- To reduce these visual impacts to

 insignificance, staff generally agreed with the

 applicant's proposed mitigation in regard to color

 and lighting of the power plant.
- Staff expanded the applicant's proposed
 mitigation with more specific conditions of
 certification to insure that the conditions are
 more precisely developed.
 - Also provided is an analysis of the cooling tower plume and a discussion of the visible cooling tower plume characteristics and effects in the surrounding area.
- Mr. Joseph Loyer, a chemical engineer

 and CEC air quality specialist, reviewed the

 independent plume analysis prepared by the

 applicant to draw a conclusion of the plume's

 visual impact on the surrounding property.
- Mr. Loyer's independent conclusions are
 based on the modeling for frequency, duration and
 size of the plume for the project cooling towers.
- 22 Staff's analysis indicates that the 23 plume visibility, frequency and size will depend 24 primarily on the design and the type of combustion 25 turbine generator, heat recovery steam generator,

1 auxili	lary boiler,	as well	as	meteoro:	logical
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- 2 conditions of temperature and humidity.
- 3 Overall staff's visual determination is
- 4 rated insignificant due to the limited number of
- 5 viewers. The existing landscaping
- 6 characteristics, for example, and also the current
- 7 visible plume from the other sources and the hours
- 8 the actual plume is visible.
- 9 Under the compliance with the LORS,
- 10 staff addresses compliance with the local LORS and
- specifically the implementation of the landscaping
- 12 plan, painting requirements and visual buffers.
- 13 Staff also addresses the applicant's
- 14 proposed mitigation and effectiveness, and
- 15 expanded upon the conditions of certification.
- 16 As proposed in staff's analysis there
- 17 are seven conditions of certification that are
- 18 listed, and again, they deal specifically with the
- 19 color of the power plant, the nonreflective
- 20 fencing, lighting of the proposed facility with
- 21 hooded fixtures, and also again landscaping and
- 22 screening of the project site.
- 23 This essentially completes my brief
- analysis.
- 25 Q That concludes your summary?

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1 A Yes, it does.
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- Q You heard the question addressed to the prior witness, applicant's witness, concerning the KOP-2 transmission line adjacent to the train tracks today.
- The question had to do with individual
 impact that might occur because of use of the
 train tracks. Do you remember that question?
- 9 A Yes. Staff, in discussions with the
 10 train representatives, had indicated to me early
 11 last summer that they were anticipating, maybe
 12 between five to ten years, that they would utilize
 13 that track as a dinner train.
- It was speculation on their part due to
 the fact that in discussions with the residents of
 Burney there was the possibility of having
 festivals and creating bed-and-breakfasts in the
 area, which would encourage tourism to the area.
 - But they felt that this was just too speculative for them. And they felt that they would wait and see if, in fact, the issues of tourism did, in fact, grow, then they would take that in consideration. But it was some time off.
- Q What would be the duration and view if a train did travel on down that track with

- 2 A It would be a short duration. In taking
- 3 a field trip at the time, we were down there at
- 4 one time, I would say between 60 to 70 feet of the
- 5 area would be seen by the occupants in the train.
- 6 At which time the applicant had indicated that
- 7 visual screening was being proposed such as trees
- 8 along that corridor.
- 9 MR. RATLIFF: At this point I would like
- 10 to go ahead and have Mr. Loyer sworn, and I would
- 11 like to have him summarize his testimony.
- 12 HEARING OFFICER BOUILLON: He's already
- 13 been sworn.
- MR. RATLIFF: Oh, he's been sworn, okay.
- 15 DIRECT EXAMINATION
- 16 BY MR. RATLIFF:
- 17 Q Mr. Loyer, did you prepare the
- 18 testimony, I think it was filed on February 22nd,
- is that correct?
- 20 A I believe so.
- 21 Q And it's titled cooling tower plume
- visibility analysis?
- 23 A Yes, that's correct.
- 24 Q And your experience regarding this type
- of modeling has to do with the air dispersion

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1 modeling that you do in the air quality unit, is
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- 2 that correct?
- 3 A This type of modeling does not have a
- 4 significant resemblance to air dispersion
- 5 modeling, just because it addresses only the steam
- 6 emissions from a cooling tower. It does not
- 7 address the emissions from the steam or air
- 8 emissions from a HRSG stack or a boiler stack.
- 9 Q What is the model that you use?
- 10 A Typically staff recommends the use of a
- 11 model called SACTI. It's actual name is seasonal
- 12 annual cooling tower impact program.
- 13 Q And are you familiar with that model?
- 14 A Yes, I am.
- 15 Q And is that why you did the analysis?
- 16 A The analysis was performed by Mr. Ken
- 17 Richmond and I reviewed the analysis.
- 18 Q I see. Can you summarize your testimony
- 19 briefly?
- 20 A I reviewed and evaluated the cooling
- 21 tower plume visibility analysis provided by the
- 22 Three Mountain Power Plant applicant. This was in
- 23 response to data request, staff data request
- 24 number 39.
- 25 Staff compared the 1995 meteorological

data used as the input to the SACTI model to 1985

- 2 Redding data, the nearest airport. The ambient
- 3 temperatures were cooler in the project area,
- 4 staying below 100 degrees, and above 23
- 5 Fahrenheit.
- 6 Wind directions and wind speeds seemed
- 7 to be very similar. Relative humidity was,
- 8 unfortunately, not available at the Redding site,
- 9 so staff could not compare the relative humidity
- of the two sources.
- 11 Staff feels that the meteorological data
- 12 used by the applicant was within reasonable
- parameters.
- 14 The modeling for a cooling tower plume
- as a general practice, we allow the applicant to
- 16 eliminate hours during a year that are considered
- low or nonvisibility. These would include
- 18 nighttime hours, fog hours, heavy rain hours,
- 19 things of this nature.
- 20 These are sometimes indicated in
- 21 meteorological files, sometimes they are not.
- 22 Sometimes they must be determined through
- 23 available information at the time.
- 24 The applicant in this case did eliminate
- 25 about, -- eliminated approximately 53 percent of

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1 the meteorological file, which is a little low for
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- 2 most of the cases that we look at in general.
- ${\tt 3}$ ${\tt Q}$ ${\tt You\ mean\ they\ could\ have\ eliminated\ more}$
- 4 hours typically?
- 5 A Yes. They could have eliminated more
- 6 hours.
- 7 Q And the hours that are being eliminated
- 8 include what, night hours, what else?
- 9 A They include nighttime hours and hours
- 10 that the applicant feels are indicative of low
- 11 visibility conditions. Their conditions for this
- 12 are 100 percent humidity, and wind speeds below 2
- miles per hour.
- 14 Let's see -- if I could give the project
- 15 manager to put up figure 1. Because the applicant
- 16 submitted an errata, staff has also prepared some
- 17 additional material to help explain the SACTI
- 18 model and its shortcomings, or it's maybe just
- illuminate what it's output truly means.
- 20 Figure 1 is my crude representation,
- 21 hand-drawn, of the representative parameters that
- 22 SACTI put out in this case. We're talking about
- 23 the height of the plume, the radius of the plume,
- and the length of the plume.
- 25 In this particular case we're looking at

a plume coming out of a single cell cooling tower

- that is laid over to the right. The plume has a
- 3 center-line to it. SACTI reports the height, the
- 4 height that SACTI is talking about is the
- 5 difference between the top of the plume tower and
- 6 the center-line of the plume. It is not the
- 7 ultimate height of the plume, not in this
- 8 particular case.
- 9 The ultimate height of this plume would
- 10 be the height of the cooling tower, the height
- 11 that SACTI reports, and the radius that SACTI
- 12 reports. The radius that SACTI reports is the
- maximum radius that the plume approaches.
- 14 The length, in this particular case,
- actually is the length of the plume.
- And figure 2, we have a slightly
- 17 different situation. This particular case we have
- 18 the single cell cooling tower and a plume that is
- 19 rising more or less above the cooling tower in a
- 20 roughly conic shape.
- 21 It may look like I erroneously drew the
- 22 center-line not perpendicular, but I did that on
- 23 purpose, just to demonstrate that the center line
- 24 does not typically go straight up. There will be
- 25 a slight difference in what SACTI reports as the

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1 length as opposed to what SACTI reports as the
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- 2 radius in this particular situation.
- 3 The height in this situation, the
- 4 ultimate height would be the height of the cooling
- 5 tower plus the height that SACTI reports.
- 6 This situation -- I'm done with this
- 7 figure now -- because of this particular reporting
- 8 mechanism that SACTI uses, it's difficult
- 9 sometimes to accurately and fairly portray how
- 10 high the plumes are going to be, how long they're
- going to be, or how big around they're going to
- 12 be.
- 13 An other unfortunate aspect of SACTI, as
- it puts out these three parameters, it does not
- 15 correlate the three. So, looking at the table you
- 16 cannot say that you will get a 100-meter-long
- 17 plume that will be 40 meters in diameter and 150
- 18 meters high. SACTI does not correlate these three
- 19 parameters.
- 20 Turning once again to the meteorological
- 21 data, we did find that 13 percent of the hours of
- the meteorological data were missing. The USEPA
- 23 recommends that for air dispersion modeling, not
- 24 for SACTI modeling, but air dispersion modeling
- 25 that you use meteorological files that are missing

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1 no more than 10 percent of the available data.
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- 2 If you use a meteorological file that is 3 missing more than 10 percent, you are then 4 throwing additional doubt on the results of the
- 5 model.
- I did an additional analysis beyond what
 the applicant performed. There is an existing
- 8 facility at the proposed site that has a cooling
- 9 tower, a two-cell cooling tower. I understand
- 10 it's very old. I don't know much more about it
- 11 than that.
- I do have some data from other projects
- that represent fairly old cooling towers, so I
- dropped that information into my analysis and
- tried to compare what would be the probable
- 16 results of modeling the existing cooling tower
- 17 with the SACTI data that we were presented with.
- 18 And generally, what I find is that these
- 19 two plumes are going to be fairly close together.
- The existing plume should be a little bit bigger
- 21 than the new plume. However, the significant
- 22 difference between the new plume and the old plume
- 23 will be that the old plume was more of a point
- source, single point source. The new plume will
- 25 be a series of point sources that will tend to

combine together when they reach into the upper atmosphere.

While staff concedes that there are
several problems with the analysis provided by the
applicant, we'd point out that these problems tend
to push the results in opposite directions.

Therefore, it is my opinion that the applicant's analysis is an acceptable estimation of the potential visual occurrences of the cooling tower steam plumes.

The last additional piece of information I have is if I could turn your attention to table what I've called cooling tower steam plume table E-1.

And in my testimony, cooling tower steam plume table 2, what these two tables represent are the table 2 in my original testimony represents the daytime hour probability that a plume will occur at the specified heights. If you look down that first column it is plume height plus cooling tower height in feet.

And as we get higher and higher plumes we get lower and lower percentages. If we look at the one height 155 feet, we see -- and we go over to the fourth column, we see that that occurs

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1 75.63 percent of the time. This is according to
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- 2 the applicant's information that they submitted in
- 3 the SACTI results. We can also see that the
- 4 existing plumes will be approximately 208 feet
- 5 high.
- Now, the new table that I presented is
- 7 more or less the same table with one important
- 8 difference. Instead of using the daytime only
- 9 non-fog hours, as we call them, the visible hours,
- 10 I include all hours, because I feel that in this
- 11 particular case we're talking about a SACTI result
- 12 that is less accurate than we like. But also one
- that we can do very little about to change.
- So in the new table we see a cooling
- tower height 155 feet occurs 73.98 percent of the
- 16 time, slightly less. But the higher plumes will
- 17 occur slightly high -- slightly more as you go
- down this table.
- 19 And that concludes my summary.
- Q Thank you.
- 21 MR. RATLIFF: These witnesses are
- 22 available for cross-examination.
- 23 HEARING OFFICER BOUILLON: Before we --
- oh, excuse me.
- 25 COMMISSIONER LAURIE: No, I had some

1 questions, too, Mr. Hearing Officer, so after you

- 2 get done with your comments I need some
- 3 clarifications.
- 4 HEARING OFFICER BOUILLON: All right.
- 5 I'd just like to get the record straight. First
- of all, Mr. Flores, you have submitted revised
- 7 testimony on February 22nd. That is not a part of
- 8 the FSA. So I'm going to mark that as exhibit
- 9 next in order, 61, your testimony, and it's called
- 10 revised visual resources testimony.
- 11 And I notice in looking through that
- 12 testimony that the photographs, the package I was
- 13 given, at least, the photographs are not included.
- 14 And I take it you mean to include the photographs
- that were in the FSA, itself?
- MR. FLORES: Yes, that's correct.
- 17 HEARING OFFICER BOUILLON: Okay.
- 18 MR. FLORES: I think there was some
- 19 reference that the photographs, part of the
- original FSA, were to be included as part of the
- 21 revised errata.
- 22 HEARING OFFICER BOUILLON: All right, so
- when we admit your testimony into evidence, if we
- do, the FSA, itself, will come in for purposes of
- 25 the photographs and tables only that are not

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1	inciuaea	ın	vour	revisea	testimony.

- 2 And also Mr. --
- 3 MR. LOYER: Loyer.
- 4 HEARING OFFICER BOUILLON: Yes. Your
- 5 testimony we are going to mark exhibit number 62,
- 6 and these tables which you distributed today and
- 7 which you had on the screen we're going to mark
- 8 exhibit number 63 for identification.
- 9 Now, Commissioner Laurie.
- 10 EXAMINATION
- 11 BY COMMISSIONER LAURIE:
- 12 Q Mr. Flores, talk to me about standards
- 13 for a moment. If we were measuring environmental
- impact of noise, there are state standards against
- which you measure.
- 16 If you're going to measure the
- 17 environmental impact of air quality issues,
- there's federal and state standards that you use.
- 19 The same is true of water and other types of
- impacts.
- 21 But when you talk about a visual impact,
- let's speak for a moment about the riders on the
- dinner train who will, for a period of 70 or so
- 24 feet, have a view of the project. And that might
- be one to two seconds, perhaps.

1	one, now do you determine when it comes
2	to the subjectivity of aesthetics whether first ar
3	impact is significant, and second, whether you
4	have adequately mitigated that impact? What
5	recognizable standards do you utilize to reach
6	your determination?
7	MR. FLORES: As to KOP-2, which is the
8	tracks which originally was the dinner train
9	proposal, staff looked at, first of all staff
10	asked the question of the dinner train
11	representatives, as to the timing
12	COMMISSIONER LAURIE: Let me interrupt
13	for a moment. I'm asking a general question,
14	looking for a general response. What standards do
15	you utilize when it comes to visual resources to
16	determine if an impact is substantial, and second,
17	whether or not it's adequately mitigated?
18	MR. FLORES: It would generally be
19	viewer exposure as the timing, that would be the
20	important factor in making my determination. And
21	based upon that, then staff would then look at
22	various mitigations based on the actual timing,
23	duration of the view.
24	COMMISSIONER LAURIE: Okay. Let me ask

the question a little different way. Let's say we

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1 weren't here to discuss a power plant, let's say
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- we were here to discuss a residential subdivision.
- 3 And currently out in the broad field in
- 4 which this residential subdivision is going to go
- is sagebrush, or some other similar type of plant.
- 6 And what is being presented is a lot of folks
- 7 might say an attractive looking subdivision.
- 8 Well, how do you determine from a CEQA
- 9 perspective whether what's going to be built
- 10 detrimentally impacts the current environment?
- 11 I'm not equating this power plant with an
- 12 attractive residential subdivision, that's not
- 13 where I'm trying to go.
- 14 What I'm trying to get at is recognizing
- that what the eye beholds is subjective, how do
- 16 you, as a matter of CEQA, develop a standard by
- which to measure? So that you can determine, a)
- whether or not an impact is significant; and, b)
- 19 whether or not that impact has been substantially
- 20 mitigated?
- 21 MR. FLORES: With a set of criteria
- that's established as part of visual resources.
- 23 COMMISSIONER LAURIE: And is this in
- 24 CEQA guidelines?
- MR. FLORES: No, it is not. It's

1	methodology	that	was	established	actually	, b	У
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- various individuals, and actually the Department
- of Forestry, BLM has established methodology, and
- 4 in fact, staff has utilized various pieces of this
- 5 methodology that was established.
- 6 And essentially established their own
- 7 type of methodology, and naturally it's more
- 8 extensive than what you would see from BLM or the
- 9 Department of Forestry.
- 10 COMMISSIONER LAURIE: And is that
- 11 methodology discussed in your testimony?
- MR. FLORES: Yes, it is.
- 13 COMMISSIONER LAURIE: Can you refer to
- 14 me specifically are there specific pages where
- 15 your methodology is referenced?
- MR. FLORES: Yes. It actually starts on
- page 2 of the report, and continues through page
- 4, which is actually just a brief outline of the
- 19 methodology that is utilized. And then towards
- 20 the back of the actual report it actually goes
- 21 more into depth of the methodology.
- 22 COMMISSIONER LAURIE: Thank you very
- 23 much, that's all I have.
- 24 HEARING OFFICER BOUILLON: Does the
- 25 applicant have any questions?

1 MS. CO	OTTLE: No	questions.
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- 2 HEARING OFFICER BOUILLON: Mr. Wolfe?
- MR. WOLFE: A couple.
- 4 CROSS-EXAMINATION
- 5 BY MR. WOLFE:
- 6 Q You refer to the methodology on page 2.
- 7 I'm looking at page 188 of the FSA, is that the
- 8 same thing? Visual resources appendix B
- 9 Commission Staff's visual assessment methodology?
- 10 MR. FLORES: I believe so, yes.
- MR. RATLIFF: No, it's not -- oh, you're
- 12 talking about the --
- MR. WOLFE: Appendix B.
- MR. RATLIFF: That did not change in the
- 15 revised testimony.
- MR. FLORES: Right.
- 17 MR. WOLFE: Okay. Let me just direct
- 18 your attention to that for a second, it says that
- 19 staff evaluated a number of factors in assessing
- 20 the visual setting of the project. And that those
- 21 factors included visual quality, viewer
- 22 sensitivity, visibility and viewer exposure, is
- 23 that correct?
- MR. FLORES: Yes, that's correct.
- MR. WOLFE: I'm curious. In the body of

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1 the testimony you go through each of the key
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- 2 observation points, 1 through 3, and provide a
- 3 brief analysis of each of these factors, but
- 4 apparently viewer sensitivity was omitted.
- For example, on page 160, KOP-3, the
- 6 Vedder Road residential area which was the subject
- of a lot of the discussion before lunch, there was
- 8 a brief summary of the factors of visibility,
- 9 visual quality and visual exposure, but not of
- 10 your sensitivity.
- I was wondering what accounts for that
- 12 omission.
- 13 MR. FLORES: Well, actually what you see
- in the FSA has changed considerably as to what's
- 15 actually been prepared as the errata. And so you
- 16 would have to refer -- this document has changed
- 17 considerably.
- MR. WOLFE: So was there --
- 19 MR. RATLIFF: There was revised
- 20 testimony that we discussed when we introduced him
- 21 as a witness that was filed on February 22nd --
- MR. WOLFE: Okay.
- MR. FLORES: Right, it actually does go
- into sensitivity of viewer exposure duration, and
- so, yes, it has changed considerably.

1		MR.	WOLE	FE:	Are	you	able	to	jus	t very
2	briefly	summaı	rize	the	viev	ver :	sensit	ivi	ty a	aspect

- with relation to the KOP-3 in the Vedder 3
- residential area?

- 5 MR. FLORES: As to visual sensitivity in
- 6 KOP-3, Vedder Road, staff looked at -- had been up
- there approximately four times, at different
- 8 various times of the day. And at each interval
- staff would review from the road going up to the
- ridge as to where the residential area is 10
- situated. Saw a tree-lined ridge. 11
- 12 So from a sensitivity standpoint, staff
- 13 did not see that as significant based upon
- 14 observations, visual observations from the roadway
- 15 and also along the residential roadway system.
- 16 But did not go onto the properties, themselves.
- MR. WOLFE: So you basically went up 17
- 18 there and you stood where presumably a resident
- 19 would stand and try to see the vista from their
- 20 perspective, and then reach a conclusion?
- 21 MR. FLORES: As much as I could, yes.
- 22 MR. WOLFE: As much as you reasonably
- could. 23
- 24 MR. FLORES: I didn't want to go onto
- 25 private property.

1	MR. WOLFE: No, I understand, I
2	completely understand. But if we look on page
3	189, which is the second page of appendix B which
4	goes to the methodology, that actually describes
5	the methodology for ascertaining viewer
6	sensitivity.
7	And apparently there's two approaches to
8	it. The first is ascertaining direct viewer
9	attitudes, which is normally done, according to
10	this, by surveying potential viewers. Presumably
11	in the form of interviews or mailed surveys,
12	things like that.
13	And I understand, it explains here that
14	that's not always an easy thing to do. And so
15	sort of the second choice is to evaluate indirect
16	viewer sensitivity by looking at viewer
17	activities, what are people actually doing.
18	I guess my question is, it sounds like
19	neither of these two approaches was actually
20	undertaken in this case, is that correct?
21	MR. FLORES: As to the residents at
22	Vedder Road, staff, as much as possible, from the
23	roadway, without crossing private property, tried
24	to make that determination by driving along the
25	roadway system of the subdivision; also from

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again, as you go up along the elevated ridge, to
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- 2 get at least a bird's eye view of the residential
- 3 area to determine whether or not there was, you
- 4 know, any type of viewer exposure at that point.
- 5 MR. WOLFE: But you did not follow
- 6 either of these two prescribed methodologies for
- 7 ascertaining that?
- 8 MR. FLORES: No, that's correct.
- 9 MR. WOLFE: And one final question. On
- 10 page 160 at the very bottom, evaluating visual
- 11 exposure vis-a-vis KOP-3, the Vedder Road
- 12 residential area, --
- MR. RATLIFF: Excuse me, I'm having
- 14 difficulty following the cross-examination of the
- old testimony as opposed to the revised. Do you
- have the revised testimony?
- 17 MR. WOLFE: I don't, and I apologize for
- 18 that. Let me just finish my question because I
- 19 don't think it matters.
- 20 You state that the number of viewers is
- 21 low. And the view duration is long, therefore
- viewer exposure is low to moderate.
- I assume that the judgment that the
- 24 number of viewers is low is based on the statement
- or the belief that there are approximately six

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1 homes in this area, is that correct?
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- 2 MR. FLORES: Yes, that's correct. Just
- 3 to clarify it much further, staff looked at case
- 4 law to determine whether or not, what is
- 5 considered significant. A threshold of
- 6 significant had not been determined in any of the
- 7 case law I've been able to discover. So staff
- 8 used my independent determination.
- 9 MR. WOLFE: So six seemed sufficiently
- 10 low as to render the aspect of viewer resource
- impacts relating to visual exposure to be less
- 12 than significant?
- MR. FLORES: That's correct.
- MR. WOLFE: I'm just curious why then if
- there are only six homes, why staff wouldn't have
- 16 made the effort to actually conduct the surveys,
- which according to staff's own methodology, are
- the preferred method of ascertaining visual
- 19 sensitivity?
- 20 Six homes doesn't seem like that many to
- 21 knock on the door, send a mailed flyer to asking
- for a response in a post-paid envelope.
- 23 MR. FLORES: Actually this issue was
- 24 probably brought up during the second workshop
- that was conducted in Burney. And that's correct,

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- 2 MR. WOLFE: Okay, thank you.
- 3 HEARING OFFICER BOUILLON: Ms. Crockett.
- 4 MS. CROCKETT: Thank you.
- 5 CROSS-EXAMINATION
- 6 BY MS. CROCKETT:
- 7 Q Mr. Flores, if, in fact, 11 homes were
- 8 involved with a direct view of the meadow, would
- 9 that make a difference in your evaluation?
- 10 A No, it would not.
- 11 Q Quickly, on the viewer sensitivity, your
- 12 initial -- your final finding on that was that the
- 13 impact would be low? Clarification on that is all
- 14 I'm asking.
- 15 A Allow me a moment.
- 16 Q I don't have your revised testimony in
- 17 front of me.
- 18 A Actually, no. At KOP-3, visual
- 19 sensitivity was considered high.
- 20 Q Would it --
- 21 A Because of residents in the area --
- 22 Q With the residents, okay, thank you.
- 23 First of all, I wanted to thank both of you for
- 24 all the work you've done on that. It mirrored a
- lot of our concerns.

1 Was it noted by staff, the orientation

- of most of those homes on the meadow in evaluating
- 3 viewer sensitivity and exposure?
- 4 A From my drive-by all I could tell from
- 5 looking at the homes is that there was no actual
- 6 direct view, frontal view of the meadow from -- of
- 7 course, there was discussions both at the workshop
- 8 and I believe in testimony regarding, well, from
- 9 the backyard views, as to the exposure at that
- 10 point.
- But, again, staff wasn't able to make a
- determination since I was unable to get onto the
- 13 property.
- 14 Q How far from the meadow is the road that
- 15 you are on when you're driving by to assess this
- view impact?
- 17 A Well, actually I made my assessment
- 18 based on going out Vedder Road, going --
- 19 O Vedder Road?
- 20 A Right, that's correct. And going along
- 21 the actual road into the subdivision.
- Q Okay.
- 23 A And looking at the residences.
- 24 Q So, would it be fair to say that when
- you turned left off of Vedder Road onto Goose

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1 Creek, which is that little side road getting
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- 2 closer to the homes on the meadow, that -- those
- are five-acre parcels, we're all in agreement on
- 4 that. And that those are fairly long, narrow
- 5 parcels so that more homes can face the meadow.
- It would be fair to estimate that you're
- 7 maybe close to 1000 feet from the meadow?
- 8 A Yes.
- 9 Q With trees between you and those homes,
- 10 and the viewshed?
- 11 A Yes.
- 12 Q So in reality you really didn't have a
- 13 clear view of their viewshed?
- 14 A Only what I could see from the driveway,
- 15 from the roadway.
- 16 O Would it be fair to assume that most
- 17 people would place their living environment
- 18 towards the best viewshed?
- 19 A I don't know, I would think so, but --
- Q Just generally?
- 21 A Generally, yes.
- Q Most people prefer to face their
- 23 backyard as opposed to the front street?
- 24 A Yes.
- Q Okay. So it would be fair to assume

from the Burney Resources Group's point of view,

- 2 that -- and I state that because it is our point
- 3 of view -- that the majority of living time that
- 4 the family would experience would be pointed
- 5 towards their backyard, which in essence is the
- 6 meadow?
- 7 HEARING OFFICER BOUILLON: I don't
- 8 think -- I don't have any objection from anyone,
- 9 but it seems to me that this witness has said he
- 10 wasn't at any of these residences and he doesn't
- 11 really know which way they face. And he's -- I
- think it's just speculation as to this person
- 13 testifying where the primary or best view from
- each of these residences is.
- So I'm going to strike that question and
- instruct the witness not to answer.
- MS. CROCKETT: Okay.
- 18 BY MS. CROCKETT:
- 19 Q So because you haven't been at the
- homes, you haven't investigated their viewshed,
- 21 you're willing to come up here and make a
- 22 statement that will impact their homes, but you're
- 23 not really comfortable in stating what that will
- 24 be in certain situations?
- MS. COTTLE: That was quite

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1 argumentative. I don't know if I'm --
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- 2 MS. CROCKETT: It was, and I apologize.
- 3 I'm trying to -- I shouldn't be forming my
- 4 questions verbally.
- 5 BY MS. CROCKETT:
- 6 Q Would it be correct to assume that you
- 7 did your evaluation and put it down in your
- 8 testimony, and yet you really were not there to
- 9 see the actual viewshed that would be impacted?
- 10 Would that be a fair statement?
- 11 A No.
- 12 Q You didn't go on the property?
- 13 A What I did is did a field survey. Of
- 14 course I used the information that was provided by
- the visual consultant of the applicant, and
- 16 utilized their criteria that they utilized as part
- of their report.
- 18 And also their KOP, which was
- 19 established as representative of the area. So
- 20 staff was assuming using that data, plus my own
- 21 field observation of driving the roadway system, I
- felt that was adequate to make my conclusions.
- Q Okay. Thank you. Mr. Loyer, --
- MR. LOYER: Loyer.
- MS. CROCKETT: Loyer, I'm sorry.

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1 MR. LOYER: Like attorney.
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- MS. CROCKETT: Not a problem. You
- 3 stated in your report that there was data missing
- 4 and you made mention of the EPA recommending that
- 5 data like that adds more suspect to the outcome of
- 6 that data.
- 7 MR. LOYER: That's correct.
- 8 MS. CROCKETT: I think in here you state
- 9 that there was a 13 percent error or questionable
- 10 data --
- 11 MR. LOYER: 13 percent of the data was
- 12 missing.
- 13 MS. CROCKETT: Was missing. Yet, in the
- 14 applicant's plume analysis they have 15 percent of
- 15 the data is calms. Is that other data, or is this
- on top of the 13 percent that's missing?
- 17 MR. LOYER: I'm sorry, 15 percent of the
- 18 data is?
- 19 MS. CROCKETT: They report 15 percent of
- 20 their data is calm. Is that on top of the 13
- 21 percent that's missing?
- MR. LOYER: Yes, that would be on top of
- 23 the 13 percent that is missing.
- MS. CROCKETT: So there is 28 percent,
- and as you had stated, the meteorological data has

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1 some problems with it. And you said that the
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- 2 United States Environmental Protection Agency
- 3 would recommend using this. It would be logical
- 4 to ask if you feel in your personal opinion this
- 5 data would stand EPA scrutiny?
- 6 MS. COTTLE: Again, we are not supposed
- 7 to be talking about EPA/PSD requirements. And I
- 8 realize the witness made a statement earlier to
- 9 that effect, but I'm going to continue to object
- 10 to any cross-examination questions that raise the
- 11 subject.
- 12 MS. CROCKETT: The witness has brought
- in the EPA --
- MS. COTTLE: Well, maybe we need to
- 15 strike that, then.
- MS. CROCKETT: -- and I'm just asking,
- 17 since he felt it was relevant enough to comment
- 18 that this was an area of concern, that I would ask
- 19 him that question.
- MS. COTTLE: It's not a question of
- 21 relevance. This is an issue that is part of the
- 22 phase two hearings. We are not supposed to be
- 23 discussing EPA/PSD requirements. That's clear.
- 24 HEARING OFFICER BOUILLON: That's not
- 25 the way I understood this witness' testimony with

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1 respect to the EPA data. With respect to the --
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- 2 MS. COTTLE: The EPA requirements have
- 3 nothing to do with the visual cooling tower plume
- 4 analysis.
- 5 HEARING OFFICER BOUILLON: He testified,
- 6 as I recall, and you can correct me if I
- 7 misunderstood him, that the EPA requirement he was
- 8 talking about was the amount of data, and that if
- 9 more than 10 percent of the data is missing your
- 10 results become more suspect than the normal case.
- MS. COTTLE: Under the EPA/PSD
- 12 requirements --
- 13 HEARING OFFICER BOUILLON: Wait a
- 14 minute. And he testified that in this case 13
- 15 percent of the data was missing, and therefore it
- 16 cast additional doubt upon the accuracy of his
- 17 results to which he's testifying today.
- 18 And he said that's in fact why he did
- 19 the additional study taking into account not only
- 20 the daylight non-fog hours, but all hours. Is
- 21 that fair, Mr. Loyer?
- MR. LOYER: That is correct.
- 23 HEARING OFFICER BOUILLON: All right.
- 24 And now, what exactly does your question have to
- do with what I just said?

1	MS. CROCKETT: If this data is faulty or
2	has a high degree of being faulty, it would follow
3	that the plume analysis could very well be faulty.
4	HEARING OFFICER BOUILLON: That's a fair
5	question. Is that true, Mr. Loyer?
6	MR. LOYER: Let me answer that first in
7	a general sense. The plume analysis relies
8	heavily on the meteorological data, so if the
9	meteorological data is not very good, or is, in
10	fact, erroneous, yes, that casts doubt on the
11	results of the model. The model's only as good as
12	the input.
13	On this specific case, 13 percent of
14	this data is missing. I feel that the EPA
15	guidelines, even though they are based on PSD
16	analysis, do have some relevancy here. It is my
17	preference that in any plume analysis that I see
18	and review that they pass EPA muster.
19	I do feel that this particular MED file
20	would pass. I don't think that the 15 percent
21	relatively calm wind speeds or meteorological

However, since we have 13 percent missing data, and not less than 10, I view the

they should have an effect on the model.

conditions have a detrimental effect beyond what

22

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1 results with a more skeptical eye.
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- 2 MS. CROCKETT: If the Brush Mountain MED
- data is deemed not acceptable what happens to your
- 4 plume analysis?
- 5 MR. LOYER: The plume analysis is
- 6 invalid.
- 7 MS. CROCKETT: You say that for wind
- 8 dispersion modeling is different than for steam?
- 9 MR. LOYER: Yes.
- 10 MS. CROCKETT: And you rely on the MED
- 11 data off of Brush Mountain to do the steam
- dispersion modeling, is that correct?
- MR. LOYER: That's correct.
- 14 MS. CROCKETT: Are you depending on the
- 15 wind velocity data on Brush Mountain to give you
- that data for the steam dispersion?
- 17 MR. LOYER: That's one aspect of it,
- 18 yes.
- 19 MS. CROCKETT: You talk about SACTI,
- 20 correct?
- MR. LOYER: Correct.
- MS. CROCKETT: Not being infallible?
- MR. LOYER: Yes.
- MS. CROCKETT: Has your modeling program
- 25 ever failed to accurately depict a plume with full

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1 data?
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- 2 MR. LOYER: Yes. We've had some
- 3 experiences with SACTI -- I may just clarify that,
- 4 SACTI is not the Energy Commission's model, this
- is an EPRI model. And I've forgotten what EPRI
- 6 stands for.
- 7 Anyways, --
- 8 MS. CROCKETT: I'm familiar with EPRI,
- 9 go ahead.
- 10 MR. LOYER: Okay. We've had situations
- where we've had very good MED data. We've known
- 12 quite a bit about the cooling tower, specifically
- what exactly the cooling tower is going to be
- doing, how it was going to be used.
- 15 And the results ended up from the model
- 16 stating that we weren't going to have plumes that
- 17 we thought were significant more than 5 percent of
- the year.
- 19 The facility was built. We can see it
- 20 every day coming into the Energy Commission over a
- 21 bridge that we pass, some of us can. And on good
- 22 cold winter mornings we see very large plumes.
- We've had people who live in that area that work
- 24 at the Commission who report that yes, virtually
- 25 every weekend during winter, son of a gun, we have

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large plumes at that power plant.
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- Now, that being said, we've also had
- 3 incidences where we've had SACTI over-estimate
- 4 what the plume occurrences were going to be. And
- 5 it is a model, it is very fallible. Its results
- 6 are to be viewed as modeling results. They do not
- 7 necessarily run the same way as reality, as the
- 8 real world runs.
- 9 For cooling tower plumes it specifically
- 10 relies on the operator to determine how big those
- 11 plumes are going to be, really.
- MS. CROCKETT: That was a lot of
- information. Let me just digest it here. Thank
- 14 you for being so candid.
- My question is you're not really sure
- then what the plume analysis and reality, whether
- they will be the same?
- 18 MR. LOYER: That is a good assessment.
- 19 One of the ways by which we try and get a good
- 20 handle on what will be reality is to attempt to
- 21 model existing plumes in the area.
- 22 We've done this on several locations and
- 23 we've come up with what we feel are good results
- in those instances.
- 25 In this particular instance we do have a

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1 plume in the area. We don't know a lot about that
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- 2 particular cooling tower. We were researching
- 3 trying to find out more information.
- 4 As I have said in my testimony, we did
- 5 have some more or less stock information on old
- 6 cooling towers. What they generally -- what,
- 7 performancewise, they generally do.
- 8 And we can apply those to the SACTI
- 9 results and get a rough estimate of what they
- 10 would be.
- 11 MS. CROCKETT: Is the applicant's
- 12 cooling tower equipment you're used to dealing
- with in the SACTI dispersion modeling?
- MR. LOYER: Yes.
- MS. CROCKETT: You've had reliable
- 16 results with this particular type of cooling tower
- 17 modeling?
- 18 MR. LOYER: I'd say they'd be reasonable
- 19 results.
- 20 MS. CROCKETT: What percentagewise would
- 21 you consider reasonable?
- MR. LOYER: For a cooling tower
- analysis, when we're not talking about health
- 24 effects, I would say that plus or minus 20 percent
- is not a bad result.

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1
                   MS. CROCKETT: Okay. You mentioned the
 2
         questionable area of humidity and visibility, rain
 3
         versus fog, with the applicant's data. And you
 4
         questioned that, in fact on page 1 of your
 5
         testimony, middle paragraph, staff does not agree
 6
         that 100 percent humidity and wind speeds less
         than 2 miles per hour indicate low visibility.
 8
                   And I think you went on to say for the
         sake of safety that you removed about 50 percent
 9
10
         of that for nighttime visibility?
                   MR. LOYER: I don't think I exactly said
11
         that.
12
13
                   MS. CROCKETT: Okay, --
14
                   MR. LOYER: I do agree that staff does
15
         not agree that low visibility is indicated when
16
         100 percent humidity and wind speeds are less than
         2 miles per hour, we don't agree that that is
17
18
         indicative in all cases that the visibility is
19
         low.
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In this particular case the resulting
refinement, if you will, in my opinion, results in
more hours being analyzed as daytime non-fog hours
than what is typical. Typically we see about
anywhere from 55 percent to 60 percent, I think.
Yeah, that's what I've got down.

1	And	in	this	particular	case	we	saw	53

- 2 percent removed.
- 3 MS. CROCKETT: It is either
- 4 invisibility, so I will pose this question to both
- 5 gentlemen, and whose ever area I'm drawing from
- 6 can speak up. There were 551 hours of fog time
- 7 delineated, 551, in your visibility?
- 8 Does that sound familiar?
- 9 MR. LOYER: I don't --
- 10 HEARING OFFICER BOUILLON: I'm sorry,
- 11 what was the question, Ms. Crockett?
- MS. CROCKETT: There is a specific
- 13 amount of fog hours delineated in one of the
- 14 reports.
- 15 HEARING OFFICER BOUILLON: All right,
- let's assume that's true. The question?
- 17 MS. CROCKETT: The question would be I
- 18 think when I divided that by -- in half by 12, I
- 19 got 45 days of fog. And I wanted to ask staff if
- 20 they felt that was a reasonable estimation for
- 21 fog.
- 22 HEARING OFFICER BOUILLON: For the
- 23 number of foggy days per year?
- MS. CROCKETT: In the Burney area.
- 25 HEARING OFFICER BOUILLON: Why don't you

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1 ask them what they think a reasonable estimation
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- of foggy days per year is in the Burney area, if
- 3 they know.
- 4 MS. CROCKETT: And if you do know, in
- 5 our area, if you referred to -- if you have
- 6 tables, what would be a reasonable -- what is
- 7 reported as an average amount of fog for our zone
- 8 or whatever, is considered?
- 9 MR. LOYER: I don't know.
- 10 HEARING OFFICER BOUILLON: Mr. Flores,
- do you know?
- MR. FLORES: I do not know.
- 13 HEARING OFFICER BOUILLON: All right.
- 14 Next question.
- MS. CROCKETT: I think that covers my
- 16 questions on plume evaluation, thank you.
- 17 HEARING OFFICER BOUILLON: Mr. Evans?
- 18 For the record Mr. Evans indicated he had no
- 19 questions.
- 20 Commissioner Laurie?
- 21 COMMISSIONER LAURIE: I don't have any
- 22 other questions.
- 23 MR. RATLIFF: Could I have recross -- or
- 24 redirect, I should say.
- 25 HEARING OFFICER BOUILLON: I believe in

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1 your case we'll call it redirect.

- 2 (Pause.)
- 3 MR. RATLIFF: Oh, you're waiting for me?
- 4 Oh, sorry.
- 5 REDIRECT EXAMINATION
- 6 BY MR. RATLIFF:
- 8 by Mr. Wolfe concerning the viewer sensitivity of
- 9 the residential area. And the question that he
- 10 posed to you was that you did not -- or he asked
- 11 you whether or not you went door-to-door in that
- 12 area to determine whether viewer sensitivity was
- high, is that correct?
- 14 A That's correct.
- Q And you told him that you did not?
- 16 A That's correct.
- 17 Q And yet in the staff methodology are
- 18 residential areas typically considered to be high
- viewer sensitivity?
- 20 A Yes, they are.
- 21 Q And was it considered to be high viewer
- 22 sensitivity in this case?
- 23 A Yes, it was.
- Q In terms of the KOP-3, the staff view
- for KOP-3 was a clear area, is that correct?

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1 A That's correct.
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- 2 Q And the residences, there was 11
- 3 residences that we've spoken of, whether they be
- 4 six or 11. Do we know that the view from the back
- of those residences was unobstructed?
- A No, we do not.
- 7 MR. RATLIFF: Okay, thank you. I have
- 8 no other questions.
- 9 HEARING OFFICER BOUILLON: Does that
- 10 elicit any further cross-examination? All right.
- 11 You care to offer that testimony that
- was discussed earlier?
- MR. RATLIFF: Yes, I would like to move
- 14 that into evidence.
- 15 HEARING OFFICER BOUILLON: Any
- objection? All right. Exhibits 60, 61, 62 and
- 17 63 -- excuse me, 61, 62 and 63 will be admitted,
- as well as Mr. Flores' portion of the FSA insofar
- 19 as it refers to charts and diagrams not included
- in his revised testimony.
- 21 At this time I believe we've concluded
- 22 the hearings with the exception of a request that
- 23 I received from Ms. Crockett based upon the
- 24 testimony that came up earlier. She had requested
- 25 my permission to offer Mr. Crockett as a witness

1 to testify specifically that he is familiar with

- 2 the area around that meadow and that there are, in
- fact, I believe 11 -- 10, that there are in fact
- 4 10 homes on the edge of the meadow.
- 5 I would entertain a stipulation from the
- 6 parties that if he was called to testify he would
- 7 so testify. Mr. Ratliff, do you have any
- 8 objection to that?
- 9 MR. RATLIFF: No.
- 10 HEARING OFFICER BOUILLON: Ms. Cottle?
- MS. COTTLE: I guess we have no
- 12 objection.
- 13 HEARING OFFICER BOUILLON: Mr. Wolfe?
- MR. WOLFE: I have no objection.
- 15 HEARING OFFICER BOUILLON: Mr. Evans?
- MR. EVANS: No.
- 17 HEARING OFFICER BOUILLON: Does the
- 18 Committee have any objection to receiving that
- 19 evidence?
- 20 PRESIDING MEMBER KEESE: No.
- 21 COMMISSIONER LAURIE: No, if the parties
- don't, I don't. Seems like it should be able to
- 23 very easily determine. The next time somebody is
- 24 up there somebody can -- and I'd like to hear from
- somebody else.

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1 So, if staff wants to stipulate today,
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- and the parties want to stipulate today, that's
- 3 fine. But should the parties go up there and find
- 4 some -- find nine or 12, and they want to offer
- 5 that into evidence, well, that's okay, too.
- 6 MS. CROCKETT: We do have a second
- 7 person here who could -- totally unrelated, that
- 8 could also --
- 9 COMMISSIONER LAURIE: From a different
- 10 party now.
- 11 MS. CROCKETT: From a different party.
- MS. COTTLE: I guess I just don't
- 13 understand the purpose of this additional
- 14 testimony, given that it's been stated on the
- 15 record that it doesn't matter whether it's six or
- 16 11. It doesn't make any difference.
- 17 HEARING OFFICER BOUILLON: Ms. Cottle,
- that's argument. That's argument, not relevant.
- 19 I believe that concludes the hearing
- today.
- 21 We have no new hearing date since at
- least orally we are vacating the ones on the
- 23 schedule.
- We'll get out an order just as soon as
- 25 possible and serve everybody that was served with

1	the earlier notice.
2	This hearing is adjourned.
3	(Whereupon, at 3:30 p.m., the hearing
4	was adjourned, to reconvene sine die at
5	this same location.)
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CERTIFICATE OF REPORTER

I, DEBI BAKER, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Hearing; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing, nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set $$\operatorname{\textsc{my}}$$ hand this 28th day of March, 2000.

DEBI BAKER

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